THE 2003 JOINT ECONOMIC REPORT

REPORT

OF THE

JOINT ECONOMIC COMMITTEE
CONGRESS OF THE UNITED STATES

ON THE

2003 ECONOMIC REPORT
OF THE PRESIDENT

TOGETHER WITH

MINORITY VIEWS

U.S. GOVERNMENT PRINTING OFFICE
WASHINGTON: 2003
JOINT ECONOMIC COMMITTEE

[Created pursuant to Sec. 5(a) of Public Law 304, 79th Congress]

SENATE
Robert F. Bennett, Utah, Chairman
Sam Brownback, Kansas
Jeff Sessions, Alabama
John E. Sununu, New Hampshire
Lamar Alexander, Tennessee
Susan M. Collins, Maine
Jack Reed, Rhode Island
Edward M. Kennedy, Massachusetts
Paul S. Sarbanes, Maryland
Jeff Bingaman, New Mexico

HOUSE OF REPRESENTATIVES
Jim Saxton, New Jersey
Paul Ryan, Wisconsin
Jennifer Dunn, Washington
Phil English, Pennsylvania
Adam H. Putnam, Florida
Ron Paul, Texas
Fortney Pete Stark, California
Carolyn B. Maloney, New York
Melvin L. Watt, North Carolina
Baron P. Hill, Indiana

DONALD B. MARRON, Executive Director, Chief Economist
CHRISTOPHER FRENZE, Chief Economist to the Vice Chairman
WENDELL PRIMUS, Minority Staff Director
November 21, 2003

HON. BILL FRIST
Majority Leader, U.S. Senate
Washington, DC

DEAR MR. LEADER:

Pursuant to the requirements of the Employment Act of 1946, as amended, I hereby transmit the 2003 Joint Economic Report. The analyses and conclusions of this Report are to assist the several Committees of the Congress and its Members as they deal with economic issues and legislation pertaining thereto.

Sincerely,

ROBERT F. BENNETT
Chairman
CONTENTS

OVERVIEW OF CURRENT MACROECONOMIC CONDITIONS.................................................................1

CHAIRMAN’S STAFF REPORTS.................................................................9

Economic Performance
   A Tale of Two Employment Surveys.........................................................10
   10 Facts about Today’s Economy............................................................15
   Putting the U.S. Economy in Global Context...........................................23
   A Primer on Deflation..............................................................................26
   10 Facts about Oil Prices........................................................................30

Federal Budget
   2003 Deficit Lower Than Projected..........................................................35
   Understanding Today’s Deficits...............................................................37
   Economics of the Debt Limit.....................................................................43
   Understanding the CBO’s Dynamic Analysis............................................47
   The President’s Budget and the Federal Debt.........................................51

Tax Policy
   A Portrait of the Personal Income Tax Burden in 2001..............................53
   The Tax Reform Act of 1986: A Primer.....................................................55
   Constant Change: A History of Federal Taxes..........................................58
   Dividend Tax Relief and Capped Exclusions............................................69
   How the Top Individual Income Tax Rate Affects Small Businesses....................73
   Understanding the Size of the Economic Growth Package.....................78
   Who Benefits from Ending the Double Taxation of Dividends?...............80
Health

*Prescription Drugs Are Only One Reason Why Medicare Needs Reform* .................................................................................................................. 98

*Health Insurance Spending Growth – How Does Medicare Compare?* .................................................................................................................. 103

*Medicare Beneficiaries’ Links to Drug Coverage* ........................................ 114

National Infrastructure

*New Possibilities for Financing Roads* .......................................................... 120

**RANKING MINORITY MEMBER’S VIEWS** .......................................................... 125

**MINORITY REPORTS** .................................................................................................................. 152

*The Persistence and Depth of Payroll Employment Job Losses* ........................................ 153

*The Administration’s Latest Snow Job on the Economy* ........................................ 155

*Poverty and Income in 2002* .................................................................................. 161

*Policies to Restore Full Employment and Promote Long-Term Growth* .................. 165

*Low-Income Working Families Deserve the Increased Child Tax Credit* .................. 181

*The Social Benefits of Unemployment Insurance Far Outweigh the Costs* .................. 185

*Unemployment Benefits and Job Search* ......................................................... 190

*Debunking the Argument That Unemployment is Not High Enough to Justify Extending UI Benefits* ......................................................... 197

*Republican Tax-Cutting Strategy Fails the Economy* ........................................... 202

*A Reality Check on ‘Faith-Based’ Revenue Estimation* .......................................... 223
THE 2003 JOINT ECONOMIC REPORT

November 21, 2003 -- ordered to be printed

MR. BENNETT, from the Joint Economic Committee,
submitted the following

REPORT

together with

MINORITY VIEWS

Report of the Joint Economic Committee
on the 2003 Economic Report of the President

OVERVIEW OF CURRENT MACROECONOMIC CONDITIONS

The U.S. economy improved significantly over the last year. Strengthening demand and well-timed tax relief helped lift both consumer and business spending, while productivity continued to grow rapidly, boosting profits and wages. Payroll employment turned up recently, adding almost 300,000 jobs from August to October.1 Taken together, the recent data suggest that the economy is on the right track. Analysts expect continued job gains and strong, sustainable economic growth into 2004.

The Economic Slowdown Began in Mid-2000

Earlier this year, the National Bureau of Economic Research announced that the recession that began in March 2001 ended in November 2001, making it, at eight months, one of the shortest and shallowest on record.

1 All data in this report are current at the time of writing, but are subject to future revision.
The NBER dating of the recession captures well the period during which overall economic activity was contracting, but it does not provide a complete picture of the slowdown and recovery. The slowdown actually began in 2000 when the investment boom of the late 1990s came to end. The NASDAQ began its sharp decline in March of 2000 and fell more than 45% by the end of the year. Economic growth slowed to less than a 1% annual rate in the second half of 2000, while business investment fell and manufacturing output declined.

Weak Investment Drove the Recession and Hampered the Recovery

Weakness in business investment continued well after the end of the recession. The technology boom of the late 1990s left significant excess capacity in certain sectors (e.g., telecommunications) at the same time that stock market declines and revelations of corporate fraud undermined investor confidence. The terrorist attacks of September 11, 2001 and the subsequent military actions in Afghanistan and Iraq increased uncertainties for some time, slowing business enthusiasm for investing. In light of all these pressures, it is not surprising that investment declined in all but one of the ten quarters from Q4 2000 through Q1 2003. Consumer spending, in contrast, grew throughout the recession and the subsequent recovery.

**Economic Growth Accelerated in 2003**
(Real annualized GDP growth rate, %)

![Graph showing economic growth acceleration in 2003](image)

Source: Bureau of Economic Analysis
Economic Growth Accelerated Over the Last Year

Economic growth accelerated over the last year as business investment began to rebound and consumer spending continued to grow. In the third quarter of 2003, growth in the gross domestic product (GDP) reached a 7.2% annual rate - the fastest in almost 20 years - as consumer spending, business investment, residential construction, and exports all showed large gains. Business investment increased in both the second and third quarters of 2003 as businesses became more confident about the future and as the pro-investment components of recent tax relief went into effect.

Consumer spending grew throughout the year but showed particularly strong gains over the summer, driven by strong growth in after-tax incomes. Both the lower tax rates and the expanded child tax credit have played a key role in supporting consumer spending.

The recent surge in demand has driven inventories down to record low levels (relative to overall sales); future economic growth will receive a significant boost when businesses begin to replenish their warehouses.

Labor Markets Strengthened in the Second Half of 2003

According to the payroll survey performed by the Bureau of Labor Statistics (BLS), employment turned up in recent months. Payrolls increased by almost 300,000 jobs from August to October, and analysts expect continued job growth into 2004.
BLS's other major employment survey – the household survey – tells a somewhat different story. The household survey found significant gains in employment through the year, and the latest (October 2003) figures indicate that the number of jobs is now higher than it was at the start of the recession. In contrast, the payroll survey reports cumulative job losses of about 2.4 million over that period, primarily in the hard-hit manufacturing sector.

The disparity between the two surveys began as the economy emerged from the recession at the end of 2001; it has since grown to be the largest such disparity in the history of the two surveys. The reasons for this disparity are a topic of ongoing research. Differences in coverage explain some of it – for instance, the household survey captures self-employment, agricultural work, and some other forms of employment that are missed by the payroll survey. However, much of the disparity remains unexplained. It may reflect a change in the labor force or be an artifact of statistical procedures (the household survey figures are very sensitive to errors in the population estimates developed by the U.S. Census). Until the disparity is better understood, analysts should use figures from both surveys with care.

Initial weekly jobless claims of unemployment insurance benefits have shown substantial declines in recent months — a strong sign of renewed job creation.

The unemployment rate fell to 6.0% in October, after peaking at 6.4% in June. This recent peak is substantially lower than the 10.8% peak that followed the recession of the early 1980s and the 7.8% peak that followed the recession of the early 1990s.
Unemployment Rate Below Previous Peaks
(Civilian unemployment rate, SA)

<table>
<thead>
<tr>
<th>Year</th>
<th>Unemployment Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980</td>
<td>10.8%</td>
</tr>
<tr>
<td>1990</td>
<td>7.8%</td>
</tr>
<tr>
<td>2000</td>
<td>6.0%</td>
</tr>
</tbody>
</table>

Source: Bureau of Labor Statistics
Gray bars denote recessions

Rapid Productivity Growth Continues
Productivity growth has been impressive throughout the recent recovery. Output per hour in the nonfarm business sector has increased at an annual rate of more than 5% since the end of the recession, well above the 2% average of the 1990s. This pace of productivity growth has not been seen since the 1960s. In the long run productivity growth boosts business profits, increases wages, and improves future living standards. A portion of the incredibly high productivity growth in the past year is likely due to the underestimation of employment growth, so that the greater output is spread over fewer workers.

Business Activity Rebounded in the Second Half of 2003
After a lull in activity early in the year, output has accelerated in both the manufacturing and service sectors, according to surveys by the Institute for Supply Management. Services continue to provide strong support to the economic expansion, and manufacturing industries appear to be on the rebound, at least in terms of production. Capacity utilization in the industrial sector remains low, hovering around 75%, but has been rising since summer. It remains well below the 82 to 83% levels seen in the late 1990s. New orders and unfilled orders for investment goods have both been rising recently, suggesting that more business spending is in the pipeline.
The Housing Market Remained Vibrant

New home sales have been very strong throughout the year, and existing home sales continue to set new records. Construction activity has also been strong with continued solid numbers of housing starts. More than 68% of Americans owned their own home in 2003, an all-time record. Low mortgage interest rates, strong gains in household incomes, and continued builder optimism have fueled the housing market. Thirty-year fixed mortgage rates averaged below 6% through most of the year. There have been some recent signs that mortgage demand is stabilizing, but with continued low mortgage rates, housing activity is expected to remain strong.

Inflation Remains Benign, Deflation Concerns Recede

The year began with some concerns, by the Federal Reserve and others, about the possibility of deflation – a generalized decline in prices. Fed officials have emphasized that deflation is extremely unlikely and that they are prepared to combat it if it were to arise. Deflation fears have subsided with prospects of sustained, strong economic growth. More recently, there have been upward movements in measures of inflation expectations, so deflation concerns have almost entirely disappeared.

The consumer price index (CPI) increased by about 2.1% over last year, and the producer price index (PPI) increased by about 3.4%. However, most of these increases were due to volatile energy prices. The “core” rates of inflation, which exclude food and energy prices, have shown little inflationary pressure; the core CPI has increased a little more than 1% over the last year, and the core PPI has increased less than 1%.

Short-Term Interest Rates Declined, Long-Term Rates Varied

In late June the Federal Reserve cut its target short-term interest rate from 1.25% to 1.0%, the lowest in 45 years. Since then, the Fed has indicated that low short-term interest rates can be maintained for a considerable period in light of very low inflation.

Long-term interest rates fell significantly in May and June reflecting a number of factors, including concerns about continuing disinflation (i.e., declines in the inflation rate) and the small risk of deflation. Markets were also moved by the growing belief that under certain circumstances the Fed might begin to purchase long-term bonds as part of its anti-deflation efforts. Long-term rates then increased in late June
as the market adjusted to increased expectations for future economic growth and as the market realized that the Fed wouldn’t soon be purchasing long-term bonds. Long-term interest rates remain low by recent standards; many observers believe that they will begin to increase as the economic recovery continues.

Financial Markets Strengthened During 2003
Interest rates on corporate bonds were very high relative to rates on less risky government securities as 2003 began, indicating tight lending conditions. After the Iraq war began in March of this year, some uncertainties dissipated. Lending conditions eased and stock prices rose. Stock prices have been boosted by increasing profits and the improving economic outlook. Since the start of the year the Dow Jones Industrial Average is up close to 17% and the NASDAQ is up by over 40%. Lending conditions for businesses recently improved further as profits increase and concern about corporate scandals appears to have waned.

Oil and Natural Gas Prices Remain High
Energy prices exhibited some sharp spikes and increased volatility in the beginning of the year. Before the war in Iraq, natural gas prices and oil prices increased dramatically, with oil prices rising to over $35 per barrel. Energy prices subsequently fell but remain well above the average price for the past decade. Testifying before the Joint Economic Committee, Federal Reserve Chairman Alan Greenspan raised concern about natural gas supplies in the near future and suggested that the federal government examine the problem closely. Futures markets suggest that oil prices will ease in the future, but natural gas prices are expected to remain firm.

International Developments
The dollar has fallen significantly against other major currencies this year. Since the beginning of the year, the dollar has declined by about 9.5% against both the yen and the euro. A declining dollar makes imports more costly and less competitive in U.S. markets and makes U.S. exports more competitive in world markets. However, economic weakness abroad has hampered exports, contributing to U.S. trade deficits. Trade deficits have helped fuel a historically high U.S. current account deficit of slightly over 5% of GDP. The current account deficit means that U.S. savings are not enough to fund U.S. investment; on the other hand, it also reflects the fact that investors abroad continue to view the U.S. as a particularly attractive place to invest.
The Federal Budget

The federal government ran a deficit of $374 billion in fiscal 2003, which equals about 3.5% of GDP. This deficit was the largest ever in dollar terms, but fell far short of record levels relative to the size of the economy; in the 1980s and 1990s, the deficit exceeded 5% of GDP on several occasions. The recent swing in the government’s fiscal balance has been primarily caused by the economic slowdown and recent spending increases; recent tax relief accounted for about a quarter of the swing.

Current government deficits are manageable for our economy if they do not persist indefinitely. While many recent spending increases have been justified by the need to combat terrorism here and abroad, spending cannot continue to grow faster than the economy. Discretionary spending, for example, grew at a 12.5% rate in fiscal 2003.

The Outlook

Recent economic data suggest that the natural resilience of our economy, boosted by aggressive monetary policy and well-crafted tax relief, is returning the U.S. to robust economic growth. Of course, some risks and uncertainties remain, as they always do. Energy prices remain elevated. The economies of Europe, Japan, and other trading partners remain weak, limiting markets for U.S. goods. Commitment to the benefits of free trade appears to be weakening in some quarters, and the global risks of terrorism and unrest in the Middle East remain.

Looking further ahead, the nation has not yet fully addressed its future fiscal challenges. Americans are not yet saving enough for their future. Our health care system delivers too little care at too high a cost. And our tax system remains needlessly complicated and inefficient, undermining economic growth. While we remain optimistic about America’s economic future, much work remains.

SENATOR ROBERT F. BENNETT,
Chairman

REPRESENTATIVE JIM SAXTON,
Vice Chairman
CHAIRMAN’S STAFF REPORTS
October 14, 2003

The Bureau of Labor Statistics (BLS) uses two distinct surveys to measure the number of jobs in America, a payroll survey that measures the number of people employers have on their payrolls and a household survey that measures the number of individuals who report being employed. Though analysts focus on the payroll estimates, the household survey has recently been painting a surprisingly different picture of the U.S. labor market. The often-cited payroll survey indicates that the number of jobs has declined by 1.0 million since the end of the recession in November 2001, while the household survey indicates that the number of employed people has increased by 1.4 million. Economists cannot yet fully explain this 2.4 million "jobs gap," but small businesses and, in particular, self-employment appear to be significant factors.

Highlights

- Two surveys from the BLS tell different stories about employment during the recovery – a loss of 1.0 million payroll survey jobs since November 2001, and a gain of 1.4 million household survey workers. The jobs gap of 2.4 million is unprecedented.

- Some have suggested that a statistical revision to the household data in January 2003 is responsible for most of the reported jobs gap. Calculations by the Joint Economic Committee (JEC) indicate, however, that the revision accounts for relatively little of the gap. Controlling for the revision, the household survey still shows an increase of 1.0 million jobs since the end of the recession, and the jobs gap is still 2.0 million. (Figure 1)

- The household survey indicates that self-employment has grown by 482,000 jobs since the recession's end. These workers are not counted by the payroll survey, so they account for a portion of the jobs gap, but two thirds of the gap remain largely unexplained. (Figure 2)

- The payroll survey is credited as more stable than the household on a month-to-month basis, but is in fact subject to major monthly and annual revisions, such as occurred to 1992 data. An annual benchmark revision of current payroll data will be released on February 6, 2004.
Has Employment Increased or Decreased Since Recession's End? Two monthly surveys paint different pictures of U.S. employment

Note: this is an updated report based on new data released by the BLS on October 3, 2003

BLS's surveys tell different stories about employment during the recovery.
The Bureau of Labor Statistics (BLS) has reported two different employment surveys since 1948, each offering a unique perspective. The payroll survey of business establishments provides information on employment, hours, and earnings in 400,000 establishments and affords a detailed look at specific industries. An alternative survey of 60,000 households, conducted by the Census Bureau on behalf of the BLS, provides a comprehensive body of information on the employment and unemployment experience of the nation's population, classified by age, sex, race, and a variety of other characteristics. The household survey contacts workers directly and serves as the basis for the unemployment rate.

The surveys followed similar paths during the eight months of the recession in 2001, as they normally do. But the two measures parted noticeably once the recovery began in 2002 and diverged even further over the last year and a half. As shown in Figure 1, the disparity between the payroll and household estimates, as reported by BLS, has been approximately 2.4 million jobs since November 2001.

Population adjustments don't explain the jobs gap.
To estimate total employment from the data collected in the household survey, BLS relies on Census estimates of the size of the U.S. population. The employment estimates are therefore sensitive to changes in the estimated population size. For example, in January
2003 an unusually large adjustment to the estimated population added 575,000 jobs to BLS’s estimate of total civilian employment.

In its reported data, BLS lumps the entire population adjustment into January 2003, rather than spreading it out over the previous thirty-six months (the period covered by the population adjustment). BLS warns that this policy makes it difficult to compare total household employment figures from before and after January 2003. However, now that the two surveys are painting distinctly different job growth pictures over an extended period, adjusting the household survey can provide important insights. Making this correction, based on JEC calculations, the household series still shows a gain of 1.0 million employed workers since the end of the recession. (Figure 1)

**Accounting for the 2 Million Jobs Gap**

<table>
<thead>
<tr>
<th></th>
<th>Differences between the Household* and Payroll surveys since November 2001</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unexplained</td>
<td>1,443,000 Jobs</td>
</tr>
<tr>
<td>Self-employment (Non-agricultural)</td>
<td>482,000 Jobs</td>
</tr>
<tr>
<td>Agriculture</td>
<td>117,000 Jobs</td>
</tr>
</tbody>
</table>

*Adjusted to reflect the January 2003 population changes.

Source: Bureau of Labor Statistics, JEC calculations

**Growth in self-employment explains most of the known difference.**

The disparity between the two surveys since the end of the recession in November 2001 remains large at 2.0 million jobs, even after controlling for the population adjustment. Roughly one third of the remaining disparity can be explained by the growth in self-employment of 482,000 workers who are uncounted in the payroll survey. Another 117,000 new jobs are in agriculture. The remaining 1.4 million gap is unexplained.¹

Figuring out the unexplained jobs gap is a puzzle. One leading explanation is that new businesses are undercounted in the payroll survey. The payroll survey focuses on known establishments, so it takes time for new employers to be captured in the data; their
employees would therefore be counted in the household survey, but not in the payroll survey. A related possibility is that an increase in contracting relationships – in which a worker works for a firm as an independent contractor rather than as an employee – have affected how workers are captured in the two surveys. Contract workers might consider themselves employed by a firm, rather than as self-employed, even though the firm does not report them as employees. On the other hand, another possibility is that the household survey is overestimating the growth in jobs because of difficulties in measuring the size of the population. A combination of these and other factors likely explains the jobs gap, but their relative importance is impossible to judge from current data.

**Payroll data are revised annually.**

An important fact about the payroll survey, which BLS routinely notes in its press releases, is that the data are subject to two monthly revisions of the preliminary numbers, as well as annual “benchmark” revisions when it matches survey data against unemployment insurance records. The benchmark revision can be significant, and because it is only fully reported in the following May’s Employment Situation report (based on data finalized each March), there is a lag of over a year before the data are settled.

One telling example comes from 1992, when payroll survey figures were cited widely in the months preceding the election. News media noted that the recovery from the 1991 recession lacked job creation, because that’s what the raw payroll data indicated. This gave rise to the notion of a “jobless recovery.” Yet the payroll survey data for 1992 were revised frequently by hundreds of thousands of jobs each month, and the twelve months prior to the ’92 election now reflect a gain of 770,000 jobs.

It turns out that small businesses were not well understood by the survey methodology in place at the time. Estimates of new business births are confirmed (or corrected) during the March benchmark revisions, and more startups were blossoming with the emergent expansion of 1992 than anyone realized. BLS has since revised its methodology for estimating new businesses, but the potential still exists for missing sharp changes during turning points in the business cycle. Importantly, the benchmark will be released early next year on February 6, 2004, though a preliminary assessment by BLS suggests the benchmark is more likely to widen the gap than bridge it.
Does the divergence in data imply inaccuracy or a different kind of economy?

Measuring the economy is difficult in any circumstance, but nowhere is it more difficult or more important than when assessing the labor market as the nation recovers from a recession. This is especially true when the economy is undergoing structural changes, which may be happening now.

Both the payroll and the household surveys have their share of advantages and disadvantages for measuring the number of jobs. As BLS often notes, the payroll survey provides a more comprehensive estimate of the number of people on the payrolls of established organizations. However, only the household survey can tell us about the self-employed and people engaged in agriculture. At this time, the remaining disparity between the two surveys cannot be explained. It may be due to inaccuracies in the surveys, a changing economy, or both; only time will tell. For these reasons, focusing only on the payroll survey is misleading. Analysts should consider both the household and payroll surveys in trying to understand the employment situation.

1 Some multiple jobholders are double counted in the payroll survey, and other types of workers, such as paid private household workers and unpaid family workers, are captured in the household survey. But those data cannot be compared since they are not seasonally adjusted, and estimates suggest they have little effect or even make the gap larger. An additional factor, also impossible to measure, is the importance of military reservists. When reservists are called up, they leave company payrolls, thus lowering payroll employment (unless they are replaced with a new worker); they also leave the civilian labor force, the focus of the household survey.

2 The original release of this report stated the payroll survey data for 1992 was revised upwards by 1.5 million jobs in 1993. It is more correct to recognize that each month was revised individually. Payroll data were overestimating employment in the early months of the '91-92 recovery by 700-860,000 jobs, but underestimating in the last five months of 1992 by 235,000-522,000. Corrections were made during annual benchmark revisions in 1992, 1993, and 1994.
Every month generates a seemingly inconsistent series of economic indicators that send mixed signals. Yet, the fundamentals of the U.S. economy remain strong, including America’s world-class productivity levels and growth, and long-sought price stability. As Alan Greenspan noted in recent testimony to the Joint Economic Committee (JEC), the U.S. economy has shown “extraordinary resilience” enabling it to weather a series of economic storms that might have plunged a less flexible economy into deep recession. This report highlights a number of positive trends that have developed throughout the last few years, despite remaining challenges in some sectors of the economy.

The 10 Facts

1. The U.S. economy has grown despite a remarkable series of shocks.


3. Consumers have been strong, incomes and spending have grown, and home sales and homeownership have hit record highs.

4. Higher productivity raises our standard of living, but it also raises the hurdle for job creation.

5. Today’s unemployment rate remains below the peaks of previous recessions.

6. Manufacturing is losing jobs, but other sectors are adding them.

7. Tax relief is working.

8. Deficits expand after recessions, but can be reversed by spending restraint and economic growth.

9. Most economists forecast faster economic growth.

10. The U.S. economy is growing faster than many other major economies.

1. The U.S. economy has grown despite a remarkable series of shocks. In the last three years, the U.S. economy has been buffeted from many directions: the bursting of the high-tech bubble, sharp declines in the stock market, scandals in corporate governance, terrorist
attacks, energy price spikes, port closures, and two wars. Yet, the U.S. experienced only a short, shallow recession followed now by seven quarters of renewed economic growth.¹ With the uncertainties of these shocks waning and the passage of new tax relief, the stock market has also begun to rebound. For example, in the first half of this year, stocks regained $1 trillion of their value.²

2. The economic slowdown began in 2000; the recession ended in November 2001. The National Bureau of Economic Research (NBER), the unofficial arbiter of business cycle ups and downs, recently announced that the 2001 recession began in March and ended in November of that year. At eight months long, the recession was one of the shortest on record.³ Economic data demonstrate that the seeds of the 2001 recession were sown as the technology boom came to an end in 2000.

- **Stock markets plummeted in 2000.** For example, the NASDAQ Composite Index plummeted by 44.7 percent from its March 2000 peak to the end of the year (chart 1).⁴ The S&P 500 Composite Index declined by 10.4 percent from its August 2000 peak to the end of the year.⁵

![NASDAQ Bubble Burst in 2000](chart1)

- **Business investment turned negative in 2000.** Chart 2 shows it went from growing at 15.1 percent in the first quarter of 2000 to retracting at 3.2 percent in the last quarter (annual rate adjusted for inflation).⁶
17

Business Investment Decline Began in 2000

(Fixed private nonresidential, real annual rate)

-30%
-20%
-10%
0%
-10%


Source: Bureau of Economic Analysis
Gray bar denotes recession

- Economic growth slowed in 2000. Annual GDP growth dropped from 3.7 percent in the first half of 2000 to 0.9 percent in the second half (adjusted for inflation).  

3. Consumers have been strong, incomes and spending have grown, and home sales and homeownership have hit record highs. Consumer incomes, spending, and home sales usually stall during a recession. Many economists feared the same would eventually happen this time, but it never did (see chart 3). Consumers' disposable income has increased 5 percent since the recession (in real terms, i.e., excluding inflation), and real growth in consumer spending has hovered around a 3 percent annual rate. New and existing home sales have continued to hit new records. Also, with homeownership now at 68.2 percent, more Americans own their own home than ever before.
4. Higher productivity raises our standard of living, but it also raises the hurdle for job creation. History demonstrates that higher productivity leads to higher wages and faster economic growth generally. Productivity growth has been a key factor setting the U.S. apart from most countries. Yet, the exceptionally high productivity growth that began in the late 1990s has also meant that the hurdle for new job creation is higher than it was before. Employers are able to go longer without hiring than they have in the past since their existing workers are more productive. Growth in productivity, which averaged 1.2 percent annually between 1974 and 1995, doubled to 2.4 percent for the period from 1996 to present.11

5. Today's unemployment rate remains below the peaks of previous recessions. Chart 4 shows that the current unemployment rate of 6.2 percent remains below the peaks of the 1980s recessions and the early 1990s recession. It is important to understand that the unemployment rate reflects businesses creating and terminating jobs, and people entering and leaving the labor markets. It generally lags other economic indicators and even rises slightly at the beginning of a recovery when people who have stopped looking for jobs become encouraged and start looking again. For example, unemployment was higher during the two years after the 1991 recession than during 1991 itself, reaching a high of 7.8 percent in June 1992. This phenomenon played out again over the last few months. After some favorable economic news, people re-entered the labor markets and pushed the unemployment rate up to 6.4 percent in June, the highest point during this recession and recovery period.12
6. Manufacturing is losing jobs, but other sectors are adding them. Evidence of job creation shows up in the payroll survey – where manufacturing employment is declining severely, but is counterbalanced by new jobs in other sectors. Chart 5 shows that the decline in manufacturing employment explains a majority of job losses since 2002; however, other sectors have been growing. New positions in the much larger service sector continue to expand, with job creation in education, health, finance, leisure and construction. Although an important sector of the economy, manufacturing represents a relatively small portion of the existing labor market. For example, manufacturing accounts for 14.7 million existing jobs while education alone accounts for 16.5 million.¹³
7. Tax relief is working. Congress and President Bush recently passed three rounds of tax relief to help the economy. The largest of the bills started to phase in tax reductions in June 2001, with the subsequent bills adding to it and accelerating the phase-ins of the tax reductions. Numerous economists believe these measures helped shorten the recession and will continue to assist the recovery. For example, Federal Reserve Chairman Alan Greenspan said, “the 2001 tax cut did fortuitously turn out to be extremely well-timed from the point of view of the economy.” The Treasury Department estimates that without the tax relief as many as 1.5 million more Americans would be out of work right now and the unemployment rate would be well over 7 percent.

8. Deficits expand after recessions, but can be reversed by spending restraint and economic growth. When compared with the size of the economy, today’s budget deficits are expected to remain well below
the deficits that occurred after the recessions in the 1980s and early 1990s. Recessions expand deficits by reducing the tax base and increasing spending on low-income programs like Medicaid. For example, 53 percent of the budget deterioration in fiscal year 2003 has been due to the weak economy and estimate changes. Legislated spending increases and tax relief account for 24 percent and 23 percent, respectively. Renewed economic growth and spending restraint are the keys to reversing budget deficits.16

9. Most economists forecast faster economic growth. For example, the Blue Chip consensus forecast shows GDP growing 3.6 percent in the third quarter and 3.8 percent in the fourth quarter of this year (annualized rates adjusted for inflation).17 Forecasters base their expectations for a pickup in growth on several factors, including the recently passed tax package and the Federal Reserve’s determination to keep interest rates at current low levels for as long as necessary.

U.S. Economy Expected to Grow

(GDP Growth, real annual rate, * indicates forecasts)

<table>
<thead>
<tr>
<th>Year</th>
<th>2001</th>
<th>2002</th>
<th>2003*</th>
<th>2004*</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP Growth</td>
<td>0.3%</td>
<td>2.5%</td>
<td>2.3%</td>
<td>3.7%</td>
</tr>
</tbody>
</table>

Source: Bureau of Economic Analysis, Blue Chip Economic Indicators

10. The U.S. economy is growing faster than many other major economies. For example, last year GDP in the U.S. grew at a 2.4 percent annual rate, while in Japan, Germany and other developed countries GDP grew at about 1 percent or less.18 Unfortunately, the sluggish global economy harms U.S. trade, which is a significant portion of our economy. Fortunately, economic indicators point to an improved global outlook in 2004, which should result in increased global demand for U.S. products.

1 Bureau of Economic Analysis (BEA).
2 Wilshire 5000 Index, Wilshire Associates, Inc.

3 National Bureau of Economic Research (NBER).

4 Nasdaq Stock Market, Inc.

5 Standard & Poor Corporation.

6 BEA.

7 BEA.

8 BEA.

9 Census Bureau and National Association of Realtors.

10 Census Bureau.


12 BLS.

13 BLS.

14 Testimony before the House Committee on Financial Services, April 30, 2003.


18 International Monetary Fund, and the Joint Economic Committee (see report “Putting the U.S. Economy in Global Context” at http://jec.senate.gov/studies/JEC%20on%20Intl%20econ%206-24-03.pdf).
The U.S. economy has been growing for over a year and a half since the 2001 recession, but the rebound has been slower than hoped. Labor markets remain sluggish, while output growth has lagged behind past recoveries. Although some analysts have tried to blame U.S. leaders for this sluggish recovery, it must be emphasized that economic weakness has been a global problem. In fact, many foreign economies have suffered through significantly worse economic setbacks than has the United States. Looking ahead, forecasters see a pickup in growth both here and abroad.

The U.S. economy grew faster than most other developed economies last year.

- Japan, the world's second largest economy, continues to be mired in an economic slump; as illustrated in Chart 1, its economy grew by only 0.3 percent last year.
- The major European economies are doing better, but only slightly. The four largest European economies—Germany, the United Kingdom, France, and Italy—grew only 0.2 percent to 1.6 percent last year.
- In contrast, the United States and Canada both posted significant growth: the U.S. grew at a solid, if somewhat disappointing, 2.4 percent, while our neighbor to the North grew by 3.4 percent. Canada was the only G7 member to post faster growth than the United States.
- Sluggish growth abroad has dampened foreign demand for U.S. produced goods and services; this has slowed growth in the U.S.
The U.S. economy has outperformed the Japanese and European economies because of a combination of three factors:

- **The fundamental resilience of the U.S. economy.** The U.S. has much more flexible labor markets and financial markets than most other developed economies. Flexibility has helped the U.S. economy endure a remarkable series of shocks—the bursting of the technology bubble, stock market declines, corporate accounting scandals, the 9/11 attacks, and two subsequent wars.

- **Supportive monetary policy.** The Federal Reserve has lowered short-term interest rates to record lows, helping to support many sectors of the economy.

- **Well-timed fiscal policy.** President Bush and the Congress have enacted three rounds of significant tax relief since the recession began in 2001. This tax relief has helped to support the economy as it has been battered by recent shocks.

**Forecasters expect that both U.S. and global growth will soon accelerate—and that U.S. growth will continue to outpace growth in Japan and Europe.**

- Most leading forecasters expect a resumption of strong growth both here and abroad. To illustrate, Chart 2 reports the most recent forecasts of the International Monetary Fund (IMF).

- The United States is expected to reach three-and-a-half to four percent growth in 2004, while European growth will be around two percent, and Japanese growth will be only one percent; Canada’s growth will be slightly less than that in the U.S.
Faster global growth will be driven by a variety of factors: continued low interest rates, low inflation, the resolution of concerns about Iraq, and reductions in energy prices.

Recent U.S. stock market gains appear to reinforce the forecasts of a pickup in domestic growth. The Dow Jones Industrial Average is up by 11 percent this year, and the NASDAQ has increased by almost 25 percent. These gains exceed those of almost all other developed economies. Growth in the U.S. economy seems poised to shift into a faster gear.
A PRIMER ON DEFLATION

May 21, 2003

The Federal Reserve recently warned of a small chance that inflation could fall substantially. With inflation already running very low, a substantial fall in inflation could push the economy into deflation. The U.S. has not experienced widespread deflation since the 1950s. In the intervening decades, economists have made significant progress in understanding the causes of deflation, its consequences, and the policies that can be used to combat it.

What is deflation?

Deflation means that prices are generally declining. This is the opposite of inflation, where prices generally increase. With inflation, a dollar today is worth more than a dollar tomorrow. With deflation, the reverse is true: a dollar today is worth less than a dollar tomorrow.

Are we currently experiencing deflation?

No. Consumer and producer prices did decline in April, but most of this reflects the post-war fall in energy prices. Over the last year, most broad price measures have shown moderate inflation of one to two percent. Inflation is thus very low, but not in a deflationary range. The one exception has been the “core” measure of producer prices, which excludes the highly volatile food and energy sectors; core producer prices have been essentially flat over the last year. While this narrower price measure is the only one suggesting current deflation, further declines in inflation could push us into wider deflation.

What causes deflation?

In the short run, deflation can be caused by weakness on the demand side of the economy. When demand slackens, producers reduce prices to retain customers; if such price-cutting is widespread in the economy, deflation results.
In the long run, deflation is the result of tight monetary policy. If the Federal Reserve allows monetary growth to lag behind the growth in purchases of goods and services, deflation will follow – as fewer dollars chase more products, prices must decline. Nobel Laureate Milton Friedman once noted that "inflation is always and everywhere a monetary phenomenon." The same is true of deflation: Persistent deflation is always and everywhere a monetary phenomenon.

Is deflation a problem? Why?
It depends. In the short run, deflation is usually a symptom of another economic problem like weak demand. However, over the longer term deflation may itself be the cause of economic problems. One concern is that prolonged and unexpected deflation undermines the ability of borrowers to repay debts. With deflation, the value of a dollar rises over time, so debts became increasingly expensive to repay. This may cause bankruptcies and disruptions in the nation's financial system as lenders become stuck with nonperforming loans to bankrupt borrowers.

Another worry is that deflation causes households and businesses to hold onto money, rather than spend it. If consumers anticipate that goods will cost less in the future, they have an incentive to wait before buying. Overall demand may suffer, leading to a sluggish economy.

A third concern is that monetary policy will lose its effectiveness under deflation. When inflation falls, nominal (dollar) returns on assets also tend to fall. Investors require less of a premium to compensate them for erosion of the purchasing power of money caused by inflation. But if inflation falls to zero or deflation creeps in, interest rates fall toward zero, and the Federal Reserve has limited ability to reduce real short-term interest rates. In that case, the Fed would have to combat deflation with other tools of monetary policy such as buying longer term bonds to reduce longer term interest rates.
Has the U.S. experienced deflation before?
Yes. The U.S. has experienced deflation, most notably when it was on a gold standard. Under the gold standard, the money supply was constrained by the nation’s gold reserves. When gold reserves and money grew slower than production, prices would fall. The pace of gold discoveries was sufficient that, on average, the U.S. approached price stability with periods of inflation offsetting bouts of deflation. Following World War II, the U.S. has generally avoided deflation because of the separation, and eventual divorce, between gold and the money supply.

Have other countries experienced deflation?
Yes, with the most notable recent example being Japan. Japan’s economy has struggled under the weight of weak demand, a troubled financial sector, and persistent deflation. Given Japan’s sub-par economic performance many fear that their fate awaits the U.S. Observing a sluggish economy along with deflation does not, however, prove that deflation caused Japan’s economic problems.

Most believe that structural differences between Japan and the U.S. will help us avoid the deflation and economic malaise that have settled on Japan.

Some see similarities between Japan since the late 1980s and recent experiences in the U.S. For example, in both cases large run-ups in asset prices were followed by sudden reversals. But most believe that structural differences between Japan and the U.S. will prevent us from experiencing the deflation and economic malaise that has settled on Japan. The U.S. financial system, for example, is remarkably more flexible and efficient, and the Federal Reserve is intent on not allowing deflation to take hold.

What policy tools can be used to combat deflation?
To combat short run deflation associated with weak demand, monetary and fiscal policies can be used to stimulate demand. In the long run, it is the job of the Federal Reserve to generate money growth sufficiently high to thwart deflation. The Fed can accomplish this using its
traditional tools – increasing the money supply by buying short-term government bonds – and, if necessary, less familiar tools – e.g., buying longer-term bonds. In recent policy statements, Fed officials have emphasized their willingness to use these tools to avoid deflation.

1 Some have characterized the period leading up to the recent recession as deflationary because gold prices declined and the dollar strengthened relative to foreign currencies. However, traditional measures of consumer and producer prices showed continuing inflation during the late 1990s and early 2000s, albeit at a slowing rate. Most economists thus view this as a period of disinflation – a declining inflation rate – not deflation.
10 FACTS ABOUT OIL PRICES

March 26, 2003

No one can dispute that the high oil prices of recent months have been bad news for consumers and the economy. Particularly hard hit have been industries that rely on oil such as airlines, transportation companies, and chemical manufacturers, as well as consumers who purchase gasoline and heating oil. While these industries and consumers have suffered from high prices, it is important to put the current oil market into some context.

1. Historical Context. Oil prices reached a peak of nearly $40 a barrel at the beginning of March, and since the beginning of the Iraqi conflict prices have slid to under $30 a barrel. Adjusting for inflation shows that recent prices are well below the levels of the 1970s and early 1980s. Measured in today’s dollars, prices topped out above $60 a barrel during that period and remained above $45 for most of the period.

2. Oil Price Spikes and Recessions. Oil price spikes have typically been followed by recessions. Of the last nine recessions, oil price increases have preceded or accompanied eight. However, it is an exaggeration to say that increases in oil prices alone caused these
recessions. Other negative macroeconomic events—often accompanied these oil price increases—restrictive monetary policy, sudden geopolitical conflict, or other supply-side factors such as a world-wide grain shortage in 1973-74.

3. Oil's Role in the Economy. Another factor mitigating the impact of oil price increases is that energy makes up a smaller proportion of gross domestic product today than in earlier decades. One manifestation of our economy's decreased dependence on energy is shown in Figure 2, which shows that over the past 20 years expenditures on fuel have made up a shrinking proportion of our incomes. The U.S. economy has become much more fuel-efficient in the past 30 years, and can produce many more goods and services on a unit of energy than before. The increase in fuel efficiency has left our economy less susceptible to energy shocks.

![Figure 2: Consumer Fuel Expenditures as a Percent of Wage and Salary Income](image)

4. Other Factors Affecting Oil Prices. The recent increase in oil prices is due to more than just the uncertainty surrounding the Iraq situation. The Venezuela strike and an unusually cold winter across the northern hemisphere have also impacted the market. Venezuela’s output fell by nearly three million barrels a day to less than one half million barrels a day, a drop greater than the current daily Iraqi production. As of mid-March its output had recovered to 1.8 million barrels a day. Some regional problems have contributed to the spike in gasoline prices, such as in California where the phase-out of the additive MTBE has caused production and distribution problems.
5. War Premium. The common perception is that there is a “war premium” of about two to five dollars per barrel. That is, expectations of higher prices in the future due to the impending conflict have resulted in prices increasing today. The recent decline in oil prices is largely due to the reduction in the oil premium, as the markets become more certain that oil shipments from the Middle East will not be disrupted.

6. Production Capacity. Many experts feel that OPEC, the Organization of Petroleum Exporting Countries, has enough excess capacity to replace Iraq’s production for an extended period of time, should its wells be destroyed. The Energy Information Administration estimates that the excess production capacity of OPEC is between 2 and 2.5 million barrels per day, more than enough to replace the loss of Iraq’s daily exports of 1.8-2.4 million barrels a day. OPEC’s president has stated that its excess capacity approaches three million barrels per day. However, it is important to note that OPEC is deliberately opaque about their true production capabilities for strategic reasons. There are oil analysts who believe that OPEC’s excess capacity is less than one million barrels per day. Total world output is roughly 75 million barrels per day.

7. Production and Consumption. Total daily oil production and consumption broken down by major region of the world are shown in Figure 3.

8. Strategic Petroleum Reserve. Our strategic oil reserve is 600 million barrels, and can be tapped should Middle East oil shipments be delayed for a period of time. Within ten days the U.S. could sell as much as four million barrels a day. The implicit agreement between
OPEC and the industrialized nations is that they will step up production as long as we do not tap our reserve.\textsuperscript{3} Saudi Arabia is walking a very fine line; while it has an incentive to exaggerate its ability to meet any output decline should Iraq’s wells go offline, it also has a great incentive to meet that implicit commitment to keep the U.S. and the International Energy Administration from releasing strategic reserves on the world market, which it fears would cause prices to plummet.

9. **Oil Futures Markets.** Attempting to forecast the effect of a U.S.-Iraqi conflict on the price of oil is a difficult venture at best. Predicting future price changes is challenging, even for the near future, since the result depends greatly upon the outcome of the conflict in Iraq. Futures prices suggest that the market believes that oil prices will fall to more reasonable prices in the near future. Figure 4 shows that the market for oil delivered in the next few months suggests a moderating price.

![Figure 4](image)

10. **Future Oil Production.** Long-run projections forecast expanding oil production worldwide. For instance, total non-OPEC output is forecast to increase by 1.4 million barrels per day, according to the Energy Information Administration, half of which will come from Russia alone. A stable Iraq could increase output within the next few years to its pre-Gulf-War production of over five million barrels a day, tripling current production.
Outlook: A large part of what will determine oil prices in the near future will be the reaction of Saudi Arabia to any major Iraqi oil disruption. While it claims to have ample excess production to replace Iraq’s production, some analysts are skeptical that it has much room to increase output. However, its ability to replace Iraq's lost output may not be necessary; even a short disruption in oil shipments from the Middle East would bring pressure on the U.S. to turn to its 600 million barrel Strategic Petroleum Reserves and the International Energy Agency to tap its reserves as well, which amounts to nearly four billion barrels. Considerable political pressure exists already to tap both reserves.

A useful site to get timely information on oil prices and on energy-related matters in general is the home page of the Energy Information Administration, which is at www.eia.doe.gov.

1 Another supply-side shock in the form of a major strike in the steel industry preceded the 1960 recession.
Last week, the Congressional Budget Office (CBO) estimated that the federal budget deficit in fiscal 2003 was $374 billion, lower than projected a few months ago.

- In its August budget update, CBO had projected that the deficit would reach $401 billion in fiscal 2003. The updated deficit estimate is $27 billion lower.

- The Office of Management and Budget (OMB) had projected an even larger deficit - $455 billion - in its Mid-Session Review in July. CBO's updated estimate is $81 billion lower.

Next week, the Treasury Department will release final budget results for fiscal 2003. The deficit is expected to be around $380 billion, consistent with the latest CBO figures.

Revenues Were Higher Than CBO Projected, Spending Was Lower

CBO updated its budget estimates to reflect actual tax revenues and spending levels as reported in preliminary Treasury data. Higher-than-expected revenues and lower-than-expected spending on some programs accounted for the $27 billion change in CBO’s deficit projection over the last few months.

- Revenues were $13 billion higher than CBO projected. Corporate income tax receipts alone exceeded expectations by $7 billion. This increase reflects the strengthening of corporate profits, which have been driven by the strengthening economy.

- Spending was $14 billion less than CBO projected. This change resulted from lower-than-anticipated spending by the Departments of Defense and Education, and for Medicaid, unemployment benefits, welfare, and net interest payments.
Putting the 2003 Deficit into Context

At $374 billion, the 2003 deficit is the largest ever in nominal terms. However, it falls far short of record levels relative to the size of the economy. The 2003 deficit was about 3.5% of gross domestic product (GDP); in the late 1980s and early 1990s, in contrast, deficits reached 5% to 6% of GDP.

The fiscal 2003 deficit reflects the weak tax revenues associated with the slow economy and a fast pace of spending increases. Tax receipts fell by $70 billion from fiscal 2002 to fiscal 2003, their third consecutive yearly decline. Much of this decline has been due to the weak economy, rather than recent tax relief. Spending increased by $146 billion in fiscal 2003, due, in part, to military action in Iraq and Afghanistan and other necessary security spending. Excluding net interest payments (which fell as interest rate declined), spending increased by almost 9% from 2002 to 2003.

Sources:


September 3, 2003

The Congressional Budget Office (CBO) recently projected that the federal budget deficit would reach $401 billion this year and $480 billion in fiscal 2004. These projections, which are similar to recent projections released by the Office of Management and Budget (OMB), have rekindled concerns about U.S. fiscal policy. These concerns are justified because continued increases in the deficit could pose significant economic problems in the future, but they must be tempered with an understanding of how these deficits arose and how the U.S. can rebound from them. The rapid improvement in the U.S. fiscal position in the late 1990s demonstrates that a combination of strong economic growth and modest spending restraint can return the budget to balance. A similar prescription applies today:

**Deficits Expand Following Recessions**

(Federal deficits as a percentage of GDP, fiscal years)

- President’s Budget
- CBO Baseline Forecast

Sources: Office of Management and Budget, Congressional Budget Office

**Highlights**

- **Deficits should be measured relative to the size of the economy.** To compare deficits across years, it is important to account for the economy’s capacity to absorb the deficits and the government’s ability to finance them. Both of these factors depend on the size of the economy.
• Today’s deficits are still below the peaks of the 1980s and 1990s, when measured as a percentage of the gross domestic product (GDP).

• **Deficits expand following recessions.** The deficit increased to 6 percent of GDP following the recessions of the early 1980s and to almost 5 percent of GDP after the recession of the early 1990s. Following the 2001 recession, today’s smaller deficits continue this pattern.

• **The weak economy and a declining tax base are the primary cause of today’s deficits.** CBO reports that 52 percent of the budget deterioration in fiscal year 2003 has been due to economic weakness, declines in the tax base, and other technical estimate changes. None of these changes is due to legislation.

• **Spending restraint and a growing economy are the keys to reducing future deficits.** Indeed, the 1990s demonstrated how these factors – coupled with pro-growth tax relief in the form of reduced capital gains taxes – can rapidly improve the fiscal situation.

**Deficits should be measured relative to the size of the economy**

This year’s deficits will be the largest ever in nominal terms (i.e., in current dollars), but this is not the most meaningful way of characterizing them. To compare deficits across different years, it is important to account for the economy’s capacity to absorb the deficits and the government’s ability to finance them. Both of these factors depend on the size of the economy. For that reason, the best way to compare deficits across years is to measure them relative to the size of the economy, which is typically measured by the gross domestic product (GDP). As shown in Chart 1, the annual budget deficit is projected to be about 4 percent of GDP this year and next. These deficits are not small, but they are lower than many of the deficits experienced in the 1980s and the early 1990s.

**Recessions increase deficits**

Although signs of a stronger recovery have recently emerged, the economy has been in a gradual recovery since the recession of 2001. It is common for deficits to increase, often substantially, following periods of economic weakness. As shown in Chart 1, deficits increased substantially during and after each of the last six recessions.
For example, the deficit increased to 6 percent of GDP following the recessions of the early 1980s and increased to almost 5 percent of GDP following the recession of the early 1990s. Today's somewhat smaller deficits continue this pattern.

What Happened to the Surplus?
Changes to CBO's FY2003 budget baseline from January 2001 to August 2003

<table>
<thead>
<tr>
<th>Changes to Baseline</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weak Economy &amp; Estimate Changes</td>
<td>52.0%</td>
</tr>
<tr>
<td>Increased Spending</td>
<td>23.3%</td>
</tr>
<tr>
<td>2001 Bush Tax Cut</td>
<td>11.5%</td>
</tr>
<tr>
<td>2002 Stimulus Package*</td>
<td>5.9%</td>
</tr>
<tr>
<td>2003 Jobs &amp; Growth Act</td>
<td>7.1%</td>
</tr>
</tbody>
</table>

*Includes other minor tax relief
Source: Congressional Budget Office

The deficits were caused by a "perfect storm"

Some observers argue that the tax relief packages of the last three years are the primary reason that budget deficits have replaced surpluses. This is incorrect. In fact, the large deficits reflect the near "perfect storm" that has rocked the federal government's budget: 1) revenues plummeted due to a weak economy and a sharp drop in the stock market, 2) spending increased due to two wars and new homeland security requirements, and 3) fiscal discipline weakened following the emergence of budget surpluses. These factors account for about three-quarters of the decline in the budget surplus.

The beginning of 2001 was the high point for projections of budget surpluses. CBO then estimated a $359 billion surplus for fiscal year 2003, while it now estimates a $401 billion deficit. As shown in Chart 2, economic changes have been the primary cause of the budget deterioration. The weak economy reduced the size of the tax base, increased spending on programs like Medicaid, and revealed technical adjustments that needed to be made to the budget estimates. In all, those factors account for 52.0 percent of the changes in CBO's projections; and none of them were due to legislation. Legislated spending increases and tax relief account for 23.3 percent and 24.5 percent of the reductions in CBO's projections, respectively.
debt service costs have been allocated to each category). Estimates for other years by both CBO and OMB reveal a similar trend.

Revenues have declined sharply, primarily because of the weak economy
Tax revenues have declined dramatically in recent years. In nominal dollar terms, revenues have now dropped for three straight years, a modern record. In fiscal year 2003, tax revenues are estimated to be $255 billion, or 13 percent, below the level in 2000. This year’s revenues would be below those of 2000 regardless of whether the recent tax relief bills had been enacted.

As illustrated in Chart 3, tax revenues are now expected to total 16.5 percent of GDP in the current fiscal year, their lowest level relative to the size of the economy since 1959. Tax revenues spiked up to 20.8 percent of GDP at the end of the technology boom, driven by booms in capital gains, stock options, corporate profits, and other taxable income. In retrospect, these revenues were unsustainable (see, e.g., the CBO study cited below). As the stock market fell and the economy entered recession, revenues declined significantly. About two-thirds of the revenue decline, relative to expectations, was due to economic weakness and declines in the tax base; only a third of the decline was caused by recent tax relief legislation.

The current decline in tax revenues to 16.5 percent of GDP will likely prove to be just as ephemeral as the spike up to 20.8 percent. Lower
taxes do provide a welcome boost to the U.S. economy. However, the tax system is structured so that tax revenues will grow faster than the economy. CBO projects that beginning in 2006 tax revenues will start exceeding 18 percent of GDP — their average level over the last 40 years. CBO’s estimate of tax revenues in future years remains above this level even if expiring tax reductions are made permanent.

Today’s deficits will not dramatically increase the publicly held debt

The publicly held debt is the amount of money the federal government has borrowed from the public; it is essentially the sum of all previous annual budget deficits and surpluses. The CBO baseline shows that publicly held debt will peak at 40.4 percent of GDP in 2005, after which a growing economy and declining budget deficits will reduce that ratio to previous levels (see Chart 4). Although the increase in the debt-to-GDP ratio is unfortunate, it is important to put it into context. The debt was substantially higher, relative to the size of the economy, for most of the 1980s and 1990s. Indeed, the debt amounted to almost 43 percent of GDP as recently as 1998.

Differences between CBO and OMB budget estimates

The Office of Management and Budget (OMB) and the Congressional Budget Office (CBO) issued their mid-session reviews of the federal budget in July and August, respectively. While these two reports reveal similar trends in U.S. fiscal policy, there are a variety of differences. The most obvious of which is that CBO made budget
estimates for ten years and OMB made estimates for just five years. More importantly, the OMB report includes both a baseline estimate of current law and an estimate of the president's budget, while the CBO report focuses on a baseline (a few policy alternatives are separately estimated). Because the CBO baseline just reflects current law, it does not include proposals for making permanent expiring tax reductions, adding prescription drug coverage to Medicare, or increasing spending on other programs. However, the CBO baseline does assume the funding in this year's Iraq supplemental appropriations bill will be carried forward in future years. Finally, CBO estimates slightly faster economic growth and higher federal revenues than OMB.

Returning to budget balance requires economic growth and spending restraint
Regardless of whether CBO or OMB estimates are used for the analysis, the conclusion is the same: resumed economic growth and spending restraint are the keys to balancing the budget. As noted above, resumed economic growth will naturally lead to increased tax revenues. However, budget balance can be restored only if spending grows more slowly that those burgeoning revenues.

As illustrated in Chart 3, spending has grown significantly faster than the economy since 2000. While spending was only 18 percent of GDP in 2000, it is now rising above 20 percent. Some of this increase has been warranted given the triple shocks of war, homeland security, and increased spending due to the recession. As those shocks recede and homeland security becomes integrated in the federal budget, however, the rate of growth in spending can and should decline significantly.

The 1990s demonstrated that pro-growth tax relief – the 1997 reductions in capital gains taxes – can go hand-in-hand with modest spending restraint, a growing economy, and a rapidly improving fiscal situation. A similar prescription applies today. The president and the Congress have enacted significant pro-growth tax relief, and the economy is beginning to show signs of renewed growth. However, it remains to be seen whether the government will demonstrate sufficient spending restraint.
ECONOMICS OF THE DEBT LIMIT

May 23, 2003

In order to meet its operational obligations, the U.S. Treasury Department requires authorization from Congress to raise the debt limit, currently set at $6.4 trillion. The U.S. has been up against the debt ceiling since February 20, utilizing accounting maneuvers to avoid default, most of which are now exhausted. The conference report for the FY2004 budget resolution (H.Con.Res. 95) prescribed an increase in the debt limit of $984 billion and automatic House passage of a bill increasing the debt limit by that amount (H.J.Res. 51). The Senate passed the debt limit bill without any amendments.

Arguments for Raising the Debt Ceiling

* Raising the debt limit is necessary to pay for programs that Congress has already authorized. The government has to issue new debt because of declines in tax revenues and increases in spending. Tax revenues have declined because of the weak economy, declining stock prices, and, to a lesser extent, recently-enacted tax relief. Spending increases reflect the U.S. response to terrorism and international threats, as well as increases elsewhere in the budget.

* Raising the debt limit is also necessary because of the growing Social Security Trust Fund. The debt limit applies not only to the publicly held debt, but also to the debt held by the Social Security Trust Fund and other government funds. Such intergovernmental debt now accounts for about 40 percent of the total debt subject to limit. Accumulating Social Security Trust Funds automatically drive up the debt subject to limit. For example, in FY1999 and FY2000 an on-budget surplus existed yet the debt subject to limit still increased. During those two years, Social Security surpluses were saved which contributed to a reduction in publicly held debt of $311.3 billion, yet the debt subject to limit increased $152.2 billion.
Even after the increase, the debt limit will not be unusually high relative to GDP. The burden of the national debt is best measured by comparing the size of the debt to the size of the economy. As shown in Figure 2, the current debt limit to GDP ratio is lower than it was during most of the 1990s. If Congress increases the limit by $984 billion, the debt limit will still represent less than 70 percent of GDP, below the peaks in the 1990s. If the economy grows as expected, this ratio will decline further in future years.

Fig. 2  Debt & Debt Limit Relative to GDP

SOURCE: U.S. Treasury and CBO  
(* indicates GDP forecasts)
Fig. 3 International Debt Comparison

- Total debt (publicly held plus intergovernmental) as a percentage of GDP is lower in the U.S. than many other industrialized nations. Figure 3 shows that the current 60 percent U.S. total debt to GDP ratio is not high in comparison to other industrial economies in Europe, and particularly Canada, Italy, and Japan which are near or above 100%.

- It is unclear whether the debt limit is a useful tool for promoting fiscal discipline. The one clear effect of the debt limit is that it forces Treasury to use accounting tricks to avoid default. These maneuvers were controversial when first employed by Treasury Secretary Rubin in 1995, but have now become routine. This financial maneuvering creates unnecessary uncertainty regarding the payment of federal obligations and undermines efforts to promote fiscal transparency.

- The debt limit is a poor measure of actual government debt. Economists generally recognize two meaningful measures of the public debt. Publicly held debt represents the total amount the government has borrowed from the public and is contractually bound to repay. Net liability encompasses publicly held debt plus the amount by which projected future expenses (forecasts of Social Security and Medicare
obligations) exceed future tax receipts. The debt limit addresses neither of these measures — it combines the publicly held debt with debt held by the government itself—so it can be misleading and confusing.

Last week the Congressional Budget Office (CBO) released a dynamic analysis of the president's budget. Using a variety of economic models, the CBO evaluated how the president's tax and spending proposals, taken together, would affect the economy and, thereby, government spending and tax revenues. Initial reactions to the study reveal much confusion about its results and methodology. This update answers key questions about the analysis.

What did the CBO find?
The CBO concluded that the tax and spending proposals in the president's budget, taken together, would have relatively small impacts on overall economic activity in the long run; these impacts could be either positive or negative. The CBO's "dynamic" projections of the fiscal impact of the president's budget thus differ relatively little (roughly "15 percent) from its usual "static" projections. The CBO also found that the president's budget would provide a significant boost to the economy in the next few years. The two business cycle models used by the CBO indicate that the budget proposals would increase real gross domestic product by 1.3 percent in 2004.

Does that mean the growth package won't boost the economy in the long run?
No. The president's budget consists of several different components: enacting the economic growth package, extending the 2001 tax relief, providing additional tax relief (e.g., by strengthening incentives for saving and charitable giving), and increasing spending. The CBO analyzed all of these proposals together; it did not analyze them separately. CBO's conclusions thus apply to the entire budget, not to its individual components.

Although CBO does not report separate results for the growth package, we can infer from its findings that the president's growth package is likely to provide a significant boost to long run growth. However, that boost is substantially offset by the economic drag of spending increases (which alone comprise more than a third of the president's budget
proposal\textsuperscript{3}) and the mixed macroeconomic impact of other tax reductions.

What would happen if the growth package were made smaller?
Economic growth would be lower. Without support from the growth package, the rest of the president's budget proposals, taken together, would provide little macroeconomic boost and might actually weaken economic growth in the long run.

Why might the other budget proposals weaken the economy in the long run?
Holding other things constant, an increase in government spending leads to a larger government deficit and greater federal borrowing. The increase in borrowing reduces national saving; private investment thus declines or must be financed by international sources of capital. Either way, domestic economic growth is reduced. The CBO assumes that such "crowding out" of private investment is substantial. Government spending may be justified on other policy grounds, but it frequently reduces the long run potential of the U.S. economy.\textsuperscript{4}

Do tax cuts have similar "crowding out" effects?
Only if they don't provide a sufficient boost to economic growth. The CBO analysis presumes that tax cuts have two-offsetting effects:

- **Supply side effects.** Many tax cuts encourage people to work, save, invest, and undertake entrepreneurial pursuits. These tax cuts expand the economy's capacity to supply goods and services (hence the description "supply side") and increase long run economic growth.

- **Effects on national saving.** Holding other things constant (i.e.; ignoring supply side effects), tax reductions affect national saving the same way that spending increases do: increased federal borrowing reduces national saving (unless people save the entire tax reduction) and private investment gets "crowded out." The magnitude of this "crowding out" of private saving is a matter of ongoing dispute. The CBO assumes a fairly high degree of crowding out; other analyses show substantially smaller effects.\textsuperscript{5}

The net effect of tax cuts on the economy depends on the relative magnitude of these two effects. If the potential for crowding out is substantial (as the CBO assumes), some tax cuts may hamper the
economy if they don’t sufficiently improve incentives to work, save, and invest. Well-designed supply side tax cuts will still increase economic growth, however, as the supply side benefits offset any reduction in growth due to lower national saving.

**Does the president’s budget include tax reductions that would increase economic growth?**

Yes. The president’s budget includes several important supply side tax cuts: ending the double taxation of dividends, increasing expensing of small business investment, and accelerating and making permanent reductions in marginal tax rates. These tax reductions encourage work, saving, investment, and entrepreneurial effort, so they increase the economy’s capacity in the long run.

**What does the CBO report conclude about the budget impacts of taxes and spending?**

The CBO’s dynamic analysis indicates that spending programs are more expensive than traditional static budget scores have indicated. Increased government spending typically weakens the economy, leading to lower tax revenues and higher spending elsewhere in the budget. Tax reductions, on the other hand, may be either more or less expensive than traditional static scores have indicated. Tax reductions that provide a sufficient boost to economic growth are less expensive, while tax reductions that do little to spark growth are more expensive.

**What does the CBO report teach us about the potential for dynamic budget analysis?**

The report demonstrates that dynamic budget analysis is possible. The CBO should be commended for producing such a professional and detailed analysis in such a short time.

Given the many uncertainties and unsettled research questions identified in the report, further work is required before we can move to full-fledged dynamic scoring (i.e., using dynamic estimates as part of the federal budget process). Dynamic analyses are valuable for informing Congress about the potential economic impacts of policy proposals, but the techniques are not yet sufficiently refined to incorporate in official budget mechanisms. With the help of outside researchers, CBO should work to resolve key uncertainties and winnow down the broad range of models that were required for this inaugural effort.
CBO should also consider whether and how to report results for individual components of budget proposals. Congress would clearly benefit from more disaggregated information about how tax and spending proposals affect the economy.

Finally, the report also raises important questions about budget analysis responsibilities and the transparency of the budget process. CBO has traditionally held responsibility for economic analyses and the scoring of spending proposals, while the Joint Committee on Taxation (JCT) has been responsible for scoring tax proposals. As dynamic analysis matures into dynamic scoring, CBO and JCT may have to refine the ways that they coordinate their activities. Both organizations should also examine, with input from other Congressional offices, how to make their analyses sufficiently transparent and accessible. The CBO report takes an excellent step in this direction with its clear documentation of many modeling assumptions.

1 An Analysis of the President’s Budgetary Proposals for Fiscal Year 2004, Congressional Budget Office, March 2003. The dynamic analysis begins at page 16 of the final report.

2 A “static” budget analysis assumes that the overall economy would not be affected by the adoption of a particular budget proposal; a “dynamic” budget analysis attempts to measure how the economy would respond and how those responses would, in turn, affect tax revenues and spending.

3 On a static basis, the budget includes $1.5 trillion in tax relief, $725 billion in new spending, and $530 billion in increased interest payments over the 2004-2013 budget horizon (relative to the CBO baseline). Allocating the increased interest, the static impacts are $1.8 trillion from tax relief and $910 billion from spending increases.

4 Some spending might boost the economy in the long run (e.g., spending on research or some infrastructure projects). The CBO did not believe such spending to be significant in the president’s budget, so it did not estimate such effects.

5 See, for example, John Seater, "Ricardian Equivalence," Journal of Economic Literature, March 1993.
THE PRESIDENT’S BUDGET AND THE FEDERAL DEBT

February 11, 2003

The President’s budget forecasts deficits and increasing public debt over the next several years. In 2003, for example, the federal deficit is predicted to be $304 billion; as a result, the publicly held debt will increase to $3.9 trillion.

Citing these figures, some commentators have expressed concern about the “record” deficits and debt in the President’s budget. The deficits and debt are at record amounts in nominal terms (i.e., in current dollars), but this is not an economically meaningful way to characterize them. Because of inflation and the real growth of the economy, a more meaningful way to compare deficits and debt across years is to measure them relative to the size of the economy.

The following chart illustrates the importance of this distinction:

![Publicly Held Debt: Total and as a Fraction of GDP](chart)

The chart focuses on the publicly held debt, rather than the total debt, because the total debt includes debts the government owes to itself (e.g., in the Social Security trust fund). The publicly held debt is a better measure of how government borrowing affects the economy.

The chart illustrates that the debt to GDP ratio will be little changed under the President’s plan, despite increases in the nominal amount of debt. The publicly held debt continues to be moderate by historical standards. Future growth in the outstanding debt should be substantially offset by growth in the economy. If the economy grows
faster than the Administration forecasts, the debt to GDP ratio may decline significantly.
The Internal Revenue Service (IRS) has released its most recent data on the distribution of income and personal income tax payments. The IRS data show that a small group of earners accounts for most federal income tax revenue and highlight how dependent tax revenues are on the incomes of the highest earners. Incomes of the top 1% of earners declined significantly in the recession year of 2001 (the data arrive with a two-year lag), leading to lower tax collections.

Half of Taxpayers Paid Nearly All Personal Income Taxes
The top 50% of taxpayers, by income, accounted for 96% of all personal income taxes paid in 2001; the bottom 50% of taxpayers accounted for the remaining 4%. These percentages have remained essentially constant for the last five years. Personal income taxes are used to finance general government operations, as opposed to the payroll tax, which is borne more broadly and is primarily used to finance social insurance programs such as Medicare and Social Security.

<table>
<thead>
<tr>
<th>Taxpayers Grouped by Income*</th>
<th>Percentage of All Income Earned</th>
<th>Percentage of All Income Taxes Paid</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2000</td>
<td>2001</td>
</tr>
<tr>
<td>Top 1%</td>
<td>20.8</td>
<td>17.5</td>
</tr>
<tr>
<td>Top 5%</td>
<td>35.3</td>
<td>32.0</td>
</tr>
<tr>
<td>Top 10%</td>
<td>46.0</td>
<td>43.1</td>
</tr>
<tr>
<td>Top 25%</td>
<td>67.2</td>
<td>65.2</td>
</tr>
<tr>
<td>Top 50%</td>
<td>87.0</td>
<td>86.2</td>
</tr>
<tr>
<td>Bottom 50%</td>
<td>13.0</td>
<td>13.8</td>
</tr>
</tbody>
</table>

*Income measured as Adjusted Gross Income (AGI).

The Recession’s Impact on High-Income Individuals Dampered Tax Receipts
Due to the weak economy and declining stock market, the incomes of the top 1% of earners declined by 18% in 2001 — as did their tax payments. This decline in income for the highest earners resulted in a $66 billion reduction in federal income tax receipts. Because such a large percentage of tax revenue is collected from a very small portion
of the population, federal revenues are highly sensitive to changes in the income of the top earners.

**The Highest Earners Continue to Bear Most of the Cost of General Government**

Those with highest incomes pay for the bulk of government’s general operations (that is, operations other than Social Security and Medicare) through their income tax payments. The top 0.5% of taxpayers paid more than half of all personal income taxes in 2001, while earning less than a third of taxable income. On the other hand, the bottom 50% of taxpayers paid 4% of personal income taxes while earning 13.8% of taxable income. The personal income tax system remains highly progressive.

**Source:** Internal Revenue Service ([http://www.irs.ustreas.gov/pub/irs-soi/01in01ts.xls](http://www.irs.ustreas.gov/pub/irs-soi/01in01ts.xls))
As perhaps the broadest overhaul of the tax code in recent memory, the Tax Reform Act of 1986 (TRA86) often stands as a reference point in discussions of future tax reforms. Although this reform looms large in the imagination of many policymakers, tax reform discussions are often hampered by a limited understanding of what changes to the tax code actually took place in 1986. This primer outlines the major changes of TRA86, as well as the current state of the code, in order to promote a better understanding of that often-cited legislation.

**Lower individual and corporate tax rates**

The Tax Reform Act of 1986 lowered the top individual tax rate from 50 percent to 28 percent and lowered the top corporate tax rate from 46 percent to 28 percent. Especially for individual tax rates, which stood as high as 91 percent in 1964, this rate reduction represented the culmination of a longterm trend toward lower tax rates. High tax rates impose a drag on the economy by reducing the reward for productive activities such as work, saving, and investment. In the decade following 1986, however, Congress raised individual rates several times, leading to a current top rate of 35 percent.

**Increased tax bias against saving and investment**

TRA86 temporarily reversed a previous trend toward relieving the double taxation of saving and investment. Prior to 1986, Congress designed certain features of the tax code to encourage personal saving by individuals and investment by businesses. One such provision, the Individual Retirement Account (IRA), allows individuals to save without being penalized by the double taxation that occurs when earnings from investments made with already-taxed wages are again taxed. TRA86 placed new restrictions on the use of these accounts. The Act also repealed a partial exclusion for capital gains, thereby increasing the tax rate on investments that increase in value.

At the corporate level, the investment tax credit was repealed, and the value of tax deductions for the cost of investment was reduced by rules that forced businesses to stretch those depreciation deductions out over a longer period of time. Post-1986 amendments to the code moved again toward more tax-neutral savings treatment through expanded
saving incentives like IRAs and reductions in tax rates on capital gains and dividend income.

**Tax simplification: one step forward and one step back**

The *Tax Reform Act of 1986* struck some gains for simplicity in the tax code, reducing the number of individual tax brackets from fourteen to two (currently, there are six brackets). Both the personal exemption and standard deduction were increased and inflation-indexed, relieving many low-income individuals of the need to itemize or even file taxes at all. Complexities such as income averaging and deductions for consumer interest and sales taxes were eliminated. Unfortunately, these individual-level simplicity improvements were overshadowed by a revision and expansion of the complicated business and individual Alternative Minimum Tax (AMT). Additionally, new rules about inventory, and especially new international taxation rules, grossly complicated business tax compliance. Since 1986, tax code complexity has steadily increased at both the individual and business levels.

*The following table highlights certain characteristics of the tax system that were altered by the Tax Reform Act of 1986:*
### Selected Tax System Characteristics:
Before and After the Tax Reform Act of 1986

<table>
<thead>
<tr>
<th></th>
<th>Before TRA86 Enactment (Tax Year 1985)</th>
<th>After TRA86 Enactment (Tax Year 1986)</th>
<th>Current Law</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Individuals</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of income brackets</td>
<td>14</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Top tax rate</td>
<td></td>
<td>46</td>
<td>28</td>
</tr>
<tr>
<td>Treatment of saving</td>
<td>60 percent of capital gains excluded from tax</td>
<td>Capital gains exclusion repealed</td>
<td>15 percent capital gains rate</td>
</tr>
<tr>
<td></td>
<td>IRAs for all workers</td>
<td>Income limits on IRAs for workers with pensions</td>
<td>Income limits on IRAs</td>
</tr>
<tr>
<td>Percent of tax filers claiming credits</td>
<td>20.7</td>
<td>16.4</td>
<td>29.2</td>
</tr>
<tr>
<td>Percent of filers claiming deductions</td>
<td>39.2</td>
<td>39.5</td>
<td>32.9</td>
</tr>
<tr>
<td><strong>Corporations</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Top tax rate</td>
<td>50</td>
<td>34</td>
<td>35</td>
</tr>
<tr>
<td>Treatment of investment</td>
<td>Accelerated depreciation of investments</td>
<td>Less favorable investment depreciation</td>
<td>TRA86 depreciation system in place</td>
</tr>
<tr>
<td></td>
<td>Investment tax credit</td>
<td>Investment tax credit repealed</td>
<td>No investment tax credit; Temporary bonus depreciation</td>
</tr>
<tr>
<td>Percent of filers subject to Alternative Minimum Tax</td>
<td>0.24</td>
<td>0.45</td>
<td>0.26</td>
</tr>
</tbody>
</table>
The current tax code is the product of an ongoing legislative process influenced both by shifts in the philosophy of taxation and by growth in understanding the economic implications of taxation. The result is an extraordinarily complex code that is frequently at cross-purposes with itself. This report highlights the major trends in the U.S. tax system since the beginning of the income tax, and especially over the last several decades, to illustrate how we arrived at the current tax system. Such an historical perspective on the tax system is crucial for understanding the motivations of features of the current code and evaluating proposals for simplification and reform.

- **The Rise of the Income Tax.** When introduced into law following the ratification of the 16th Amendment in 1913, the income tax directly affected only one percent of the population. With the Great Depression and World War II, however, the number of households paying income taxes shot from four million to 43 million.

- **Mid-Century Experimentation: Tax Cuts to Smooth the Business Cycle.** In the 1960s, policymakers began experimenting with lowering taxes to smooth the traditional economic cycle of boom and recession. The underlying thinking was that increasing consumers’ disposable income at precisely the right time could dampen temporary economic declines or speed recovery.

- **The Beginning of Modern Tax Policy: Reagan’s 1981 Tax Cut.** The Reagan tax cut of 1981 marked an important new direction in tax policy. That tax legislation put emphasis on lowering marginal rates that discourage work and saving and took special steps – such as the establishment of Individual Retirement Accounts – to reduce the income tax’s implicit double taxation of saving and investment. The idea that saving and investment lead to capital formation, a driver of long-run growth, is a basic principle of modern economic thinking.

- **The 1986 Tax Reform Act: A Mixed Bag.** The Tax Reform Act of 1986 (TRA86) was a watershed attempt at wholesale reform marked by both impressive achievements and notable failures. While TRA86 significantly reduced individual and corporate tax rates and deductions, a renewal of double taxation on saving marred those central accomplishments. Moreover, the 1986 reform substantially complicated tax compliance for businesses through complex new
inventory and international tax rules and an expanded Alternative Minimum Tax.

- Tax Policy Since 1986. The primary achievement of the 1986 tax reform – lowering personal tax rates and reducing the number of brackets – was lost during the 1990s. However, in a positive reversal of a 1986 policy, recent changes have relieved some saving from double taxation by expanding saving opportunities like IRAs. Recent capital gains and dividend tax rate reductions have promoted investment as well. Unfortunately, the *ad hoc* nature of many post-1986 tax changes and the increasing use of the code for social policy have increased tax complexity.

Current tax code complexity reflects a cumulative history of changes motivated by shifting philosophies and priorities. While some of these priorities – such as low rates and a low saving burden – have been rightly pursued and should continue to guide tax policy, constant change without comprehensive reform has made the code ripe for major simplification.

The current tax code is the product of an ongoing legislative process influenced both by shifts in the philosophy of taxation and by a growing understanding of the economic implications of taxation. The result is an extraordinarily complex code that is frequently at cross-purposes with itself. This report highlights the major trends in the U.S. tax system since the income tax’s beginning, and especially over the last several decades, to illustrate how we arrived at the current tax system. Such an historical perspective on the tax system is crucial for understanding motivations for features of the current code and evaluating proposals for simplification and reform.
While the U.S. relies on estate and payroll taxes in addition to income taxes, the focus of this report will be on corporate and individual income taxes, the main generators of revenue for general government operation and the largest sources of complexity in the tax system. (See the above chart for contributions of each tax to government revenues.)

**The 16th Amendment and the Rise of the Income Tax**

Before the ratification of the 16th Amendment in 1913 gave the federal government the power to levy an income tax, the U.S. government raised revenue primarily through tariffs and excise taxes on items such as liquor and tobacco. Following ratification, Congress created an income tax featuring a seven percent top rate, with only the richest one percent of individuals paying this tax. Although Congress sharply raised tax rates during World War I and again during the Great Depression, the proportion of people facing the income tax remained quite small. However, the demands of World War II prompted Congress to extend the reach of the income tax to the masses. Between 1939 and 1945, the number of households subject to the income tax shot up from four million to 43 million.
The Payroll Tax’s Great Depression Origins

Congress enacted the Social Security Act of 1935 during the middle of the Great Depression and two years later created a distinct payroll tax system to fund it. Payroll taxes currently provide financing for Social Security – Old Age, Survivors, and Disability Insurance (OASDI) – and part of Medicare. The tax was introduced at a rate of one percent on all payrolls (wages and salaries), payable by both employers and employees, for a total rate of two percent.

The current payroll tax is 15.3 percent of wages, on paper split evenly between employer and employee. Economists of all stripes agree, however, that the employee bears the employer portion of the tax in the form of lower wages. The first 12.4 percent of the payroll tax is levied on payroll income up to a cap, which was $87,000 in 2003. Due to this cap, the payroll tax would be considered regressive (i.e. a tax under which lower-income individuals face a higher average tax rate than higher-income individuals) if it stood alone. That regressivity is offset, however, by Social Security benefits that replace a much higher fraction of earnings for low-earners than for high-earners. The Social Security system taken as a whole, including its payroll tax financing mechanism, is actually quite progressive.

Mid-Century Experimentation: Tax Cuts to Smooth the Business Cycle

Although it was necessary to raise taxes to pay for the war, increasing taxes during the Depression was an economically disastrous strategy that reflected poor knowledge of the effects of taxes on the economy. Benefiting from an improved understanding of economic theory, policymakers after 1950 began to view tax cuts as a way to boost personal disposable income and consumer spending, thereby smoothing the business cycle. Accordingly, the 1960s saw a modest drop in the top tax rate to 70 percent from over 90 percent, as well as experimentation with investment tax credits that reduced tax liability for companies using earnings to make investments. Despite several tax cuts during the 1970s and relatively stable real incomes, inflation pushed millions of workers into higher tax brackets and reduced the value of exemptions and deductions.

With the passage of the *Economic Recovery Tax Act of 1981*, two major themes emerged that would dominate federal tax policy in the following decades: reducing *marginal tax rates* that discourage work and investment, and reducing the *bias against saving* inherent in any income tax. The Act reduced the top individual tax rate from 70 percent to 50 percent and indexed all brackets for inflation. This legislation also reformed business depreciation rules to encourage investment by allowing firms to deduct more quickly the cost of investment from their tax liability.

*Marginal Tax Rates Emphasized*

The idea that a person’s *marginal* tax rate has important effects on economic decision making was not prominently embodied in tax legislation before 1981. Previous policymakers had recognized that lowering *average* tax burdens could have positive effects on the economy by providing individuals with more disposable income to spend. This 1960s-era thinking had given less attention to the importance of the marginal tax rate (see box). The marginal rate – which determines how much of each additional dollar of earnings a person keeps – is the rate that matters for a worker making a decision about whether to work extra hours, or a business deciding whether to invest in another machine. Before 1981, the highest federal rate was 70 percent – meaning that a person in the top income bracket was allowed to keep only 30 cents of every additional dollar earned after paying federal income taxes. By emphasizing marginal tax rate reduction, the 1981 tax cut encouraged more work and savings, ushering in a decade of sustained economic growth.
Marginal versus Average Tax Rates

A person's marginal tax rate is the tax rate that person would pay on an additional dollar of income earned or received beyond his current income. In an income tax system where tax rates increase with income, the marginal rate is the rate corresponding to a person's top income tax bracket. For example, if the first $10,000 of income is taxed at 10 percent and the second $10,000 is taxed at 20 percent, a person who earned $15,000 would be in the 20 percent bracket facing a 20 percent tax rate on an additional (marginal) dollar of income.

An average tax rate, in contrast, is the overall rate at which a person is taxed on all his income, as opposed to the tax rate on just an additional dollar of income. In the tax system example above, a person earning $15,000 would pay $1,000 in taxes on his first $10,000 of income and another $1,000 in taxes on the remaining $5,000 of income. The average tax rate is calculated by dividing his total tax payment of $2,000 by his total income of $15,000. This individual would thus face an average tax rate of 13.3 percent (2,000/15,000=13.3 percent) but a marginal tax rate of 20 percent.

Average and marginal tax rates serve different functions in evaluating tax policy. While average rates are used to determine how different groups are impacted by a tax, marginal rates are important for determining how much taxes affect individuals' work and saving decisions.

Saving and Investment Encouraged

Saving and investment, which lead to a higher level of capital in the economy, are important drivers of long-run economic growth. The 1981 tax cut promoted saving and investment by reducing the burden that a standard income tax imposes on saving. By collecting a tax both when a dollar is initially earned and again on the investment income generated if it is saved, an income tax system penalizes saving through double taxation.

In recognition of the income tax system’s bias against saving, the 1981 Act included provisions that relieved a portion of the double burden on saving and investment. One such provision, the Individual Retirement Account (IRA), allows individuals to save while avoiding double
taxation. Earnings invested in a traditional IRA are taxed only once—upon withdrawal from the account. Other tax code changes allowed businesses to accelerate depreciation of their investments and provided tax credits for new investments—encouraging capital formation and thereby economic growth. Investment tax credits, accelerated depreciation, and IRAs all introduced elements of a consumption tax system into the traditional income tax.

The Tax Reform Act of 1986 (TRA86) was a watershed attempt at wholesale reform, albeit a reform marked both by impressive achievements and by notable failures. The 1986 Act represented a compromise between those who wanted a broader tax base with a broader definition of income and those who wanted to reduce high marginal tax rates and their depressing effect on economic growth. The reform made important gains for economic efficiency by dramatically lowering tax rates—including a reduction in the top individual rate from 50 to 28 percent—and reducing the number of tax brackets. As discussed below, those achievements were marred by the introduction of new complexities into the tax code and a renewal of the income tax’s bias against saving and investment.

Marginal Tax Rates and Progressivity
Progressivity refers to the extent that higher-income individuals pay a higher tax rate than do lower-income individuals. A tax system’s progressivity depends on a number of factors, including the rate structure, the forms of income subject to taxation, and the availability of deductions and credits.

The Tax Reform Act of 1986 represented the culmination of a trend toward lower marginal tax rates that began hesitantly in the 1960s and was reaffirmed in 1981. In the 22 years between 1964 and 1986, the top individual tax rate fell from 91 percent to 28 percent. Yet, tax system progressivity actually increased over this period of falling rates for two reasons: 1) higher-income individuals chose to take more of their compensation as taxable salaries rather than as non-taxed fringe benefits, and 2) tax base broadening resulting from elimination of many deductions.
Some Progress on Simplification

The 1986 reform made some progress on simplifying the tax code, but it also added considerable new complexity. The Act made some advances in simplicity for individuals, reducing the number of individual tax brackets from 14 to two (15 and 28 percent). Both the personal exemption and standard deduction were increased as well as indexed to inflation, relieving many lower-income individuals of the need to itemize or even file taxes at all. Additionally, complexities such as income averaging and deductions for consumer interest and sales taxes were eliminated.

Unfortunately, several features of the 1986 Act actually added significant new complexity to the tax code, offsetting many of the positive accomplishments. New rules governing IRAs complicated retirement planning for many individuals. At both the individual and business level, the Alternative Minimum Tax (AMT) – which requires many filers to calculate a second tax liability (and pay the greater of the two) – was revised and expanded. For businesses, new rules about inventory grossly complicated tax compliance. New international tax rules changing the timing of tax payments for certain types of foreign income also greatly added to tax complexity for businesses.

Temporary Reversal on Saving

Whereas the Reagan tax cuts of 1981 made important inroads in alleviating the tax system’s double taxation of savings, the Tax Reform Act of 1986 negated this accomplishment by reducing saving and investment incentives. At the individual level, the 1986 reform placed new restrictions on the use of IRAs and also repealed the partial exclusion for capital gains, thereby increasing the tax rate on investments that increase in value. At the corporate level, the investment tax credit was repealed and less favorable depreciation rules were re-imposed, making new investment a less attractive proposition. While these changes reinstated much of the tax code’s bias against saving and investment, this reversal would prove to be an aberration rather than a trend. Future amendments to the tax code would again move toward tax-neutral savings treatment, and nearly all major tax reform proposals would advocate adoption of a saving-friendly consumption tax base.
Since 1986: Fluctuating Rates and Steadily Increasing Complexity

The prime achievement of the 1986 tax reform – lowering tax rates and reducing the number of brackets – was lost during the 1990s through a series of increases in both tax rates and the number of tax brackets. With tax hikes enacted under President George H. W. Bush in 1990 and President Bill Clinton in 1993, the top tax rate climbed from 28 percent to 39.6 percent while the number of tax brackets proliferated from two to six. Tax cuts in 2001 and 2003 brought the top marginal rate down slightly again. Two other trends during the 1990s – an increasing use of the tax code to achieve social policy objectives and an increase in tax preferences for saving – both contributed to increasing complexity in the tax code, as described below.

Social Policy in the Tax Code

During the late 1980s and especially the 1990s, legislators made increasing use of the tax code to encourage or reward certain behaviors unrelated to the tax system’s primary purpose of raising revenue in the most efficient, fair, and simple way. Certainly, social policy goals have long been pursued through the tax code. The corporate income tax, for example, contains an alternative fuel production credit, while both the individual and corporate sides contain incentives for the restoration of historic buildings. Yet, the growth in the 1990s of narrowly targeted tax provisions, especially on the personal side of the tax code, was remarkable. The Earned Income Tax Credit (EITC), available to workers who pay no federal individual income tax, expanded significantly between 1991 and 1996. The Tax Relief Act of 1997 established a child credit, two different education tax credits, and IRAs specifically for educational saving. Legislation in 2001 expanded the child credit and offered it even to those paying no federal income tax.

Many of the social objectives pursued through the tax system are surely worthy goals. Nonetheless, one must be aware that the use of credits, deductions, and exemptions instead of direct spending programs has undeniably complicated the code and made tax filing a more daunting task for the average tax filer.

Encouraging Saving and Investment ... Again

The 1990s also saw a resumption of the battle against the double taxation of savings, albeit in a narrow, targeted way symptomatic of
the trend toward using the tax code to encourage specific approved behaviors. Medical Savings Accounts were established to encourage saving for medical expenses, although in reality few people were eligible to participate. Saving for educational expenses was encouraged through an Education IRA and the Section 529 Qualified Tuition Program. Roth IRAs were also introduced, providing a similar tax benefit as traditional IRAs but changing the timing of the tax payment from the time of distribution to the time the money is earned.

In 2003, Congress took another important step toward relieving the double taxation of saving by reducing the individual tax rate on dividend income to 15 percent.

Although the 1986 reform taxed capital gains at the same rate as other income, the cause of eliminating saving disincentives in the tax code realized a minor victory when the capital gains tax rate was held constant in 1990 and in 1993 even as ordinary income tax rates increased. Between 1997 and 2003, Congress reduced the capital gains rate to its current level of 15 percent. The tax on capital gains is often the second or even third layer of taxation imposed on saved income. Accordingly, this tax is an important disincentive to saving and potential drag on efficient capital movement and economic growth. In 2003, Congress took another critical step toward reducing the double taxation of investment in corporate stock by reducing the tax rate on dividend income at 15 percent.

While all of these provisions represent important progress toward reducing the burden on saving, they simultaneously complicate tax and financial planning. The number of savings plans to choose from, the restrictive rules governing those plans, and the different tax rates for various income sources all add complexity and offer ripe targets for simplification agendas.

Where Do We Go From Here?
The history of the income tax reveals several clear patterns in tax legislation over the last two decades. The Reagan tax cut of 1981 promoted two trends – lowering marginal tax rates and reducing the double taxation of saving – that have remained important tax policy
considerations since that time. The Tax Reform Act of 1986, although affirming the importance of lower tax rates, temporarily reversed the effort to alleviate the tax burden on saving. Since 1986, the tax treatment of saving has improved, but complexity and tax rates have generally increased along with the targeted use of the tax code as an instrument of social policy.

Congress now faces important questions about the future of tax policy. How should future tax reforms further relieve the double taxation of saving? Can complexity in the tax code be relieved through incremental simplification efforts within the existing structure, or is fundamental reform necessary? If fundamental reform is the route chosen, what can be done to prevent the unraveling of reform as occurred in the aftermath of 1986? Future reports in this JEC series will explore these questions and consider how Congress can approach tax code changes from a consistent framework that incorporates the lessons of recent history.

This report is the first in the JEC Tax Simplification and Reform series. This series addresses the growing bipartisan belief that the current tax code is broken and that opportunities exist for wholesale improvements. Future papers will explore topics including the difference between income and consumption taxes and issues in evaluating tax system fairness.
DIVIDEND TAX RELIEF AND CAPPED EXCLUSIONS

May 13, 2003

Several forms of tax relief for dividend income have been proposed in recent months. A full dividend exclusion, such as that proposed by the president, would end the double taxation of corporate earnings paid as dividends. Under the president’s plan, earnings could be taxed when earned by a company or when paid to shareholders as dividends — but not on both occasions.

One variation on the president’s proposal would exempt some fixed fraction of an individual’s dividend income from personal income taxation instead of excluding the full amount. For example, a 50 percent exclusion would exempt from individual income taxation half of any person’s otherwise taxable dividend income. A similar proposal would reduce the individual income tax rate on dividend income instead of fully eliminating that tax. For example, the tax rate on dividend income could be lowered to the current tax rate on long term capital gains.

Each of these approaches would reduce the tax rate on all taxable dividends. A different approach to dividend tax relief would lower taxes on only some taxable dividends. For example, a capped exclusion would eliminate individual taxes on dividends only up to a certain cap, such as $500 per person. Any dividends above that cap would continue to be taxed at both the corporate and individual levels. In other words, some shares of stock would be taxed differently based on who owns them.

Many pro-growth and corporate governance benefits of dividend tax relief would be lost under a capped dividend exclusion.

While such a capped exclusion may at a glance seem similar to the other approaches described above, this proposal would actually result in very different outcomes. In particular, many pro-growth and corporate governance benefits of dividend tax relief would be lost.
Reducing dividend tax rates promotes efficiency and economic growth

Both a dividend exclusion that applies to all taxable dividends\(^2\) and a reduction in the dividend tax rate would lower the effective tax rate on corporate earnings. This reduction would change managerial behavioral and deliver a number of economic benefits:

- **Better corporate governance and more efficient resource use.** Paying dividends rather than retaining earnings would become a more attractive proposition for companies; this change would promote a more efficient allocation of capital and give shareholders, rather than executives, a greater degree of control over how a company's resources are used.

- **Higher stock prices and healthier balance sheets.** Investing in equity would become more attractive to investors, boosting stock prices for short-term stimulus and making it easier for companies to finance new investment by issuing new shares of stock rather than by issuing debt. This change would mean less debt financing and healthier corporate balance sheets, reducing the risk of bankruptcy during hard economic times.

- **More growth-enhancing investment.** As the cost of financing new investments through the sale of new shares became more lucrative, companies would increase investment in capital such as equipment and buildings. This investment expansion would promote economic growth and increase real wages and incomes for all workers.

- **Improved international competitiveness.** Due to high U.S. corporate tax rates and the double taxation of dividends, the effective top tax rate on dividends in America is the second highest in the developed world.\(^3\) Reducing the tax burden on dividends through a non-capped exclusion or reduction in the dividend tax rate would improve the attractiveness of investment in U.S. companies relative to foreign companies.

**Capped dividend exclusions don’t change corporate behavior**

These positive effects of dividend tax relief would fail to materialize if that tax relief takes the form of a small capped exclusion. To understand why, one must consider the corporate manager’s predicament. From the manager’s perspective, each share of the
company's stock represents a vote, with each shareholder-owner allowed to make one vote for each stock share owned. That manager makes decisions for the company based on how most shares are affected, crafting policies that would, in essence, receive the largest number of "votes."

Now consider a manager's decision-making process in the case of a dividend exclusion with a $500 cap. The problem with a fixed dollar cap on the amount of dividends excludable from individual tax is that individuals with dividend income in excess of the $500 cap may hold many or most of the shares of company stock that are subject to dividend taxes. Dividend income from the shares held by these individuals would continue to be subject to full double taxation. The more shares that are held by individuals subject to full double taxation, the more "votes" there will be for the status quo: Corporate managers are therefore much less likely to change their behavior in response to a capped exclusion than they would be if double taxation were fully ended.

Because it does little to lower the effective tax rate on dividends, a capped exclusion would not lead to increased investment or higher dividend payments.

With a capped dividend exclusion, managers will make decisions about dividend payments, investment, and investment financing in largely the same way as they did prior to the exclusion, since most of the shares held by taxable investors would continue to be fully taxed twice, at both the corporate and individual levels. That is, the total effective tax rate on corporate earnings, as well as managerial behavior, would remain largely unchanged.

The idea that caps don't affect economic behavior in important ways is widely accepted by economists. For example, the Congressional Research Service states:

"There are proposals to provide a dividend exclusion that is capped at a certain level, such as the $400 exclusion that was provided historically. While this provision would be much less costly [than a full exclusion],
it would provide little or no behavioral response and thus do little to increase investment in corporate equity. The capped exclusion therefore would have little effect on efficiency or the stock market, the main reasons for providing benefits, and would essentially be a windfall benefit for holders of dividends.\(^4\)

**Caps lack “bang for the buck”**

A capped approach to dividends is questionable on economic policy grounds, particularly given the existence of attractive alternate proposals. While a capped exclusion could offer incentives for low- and middle-income households to save, concerns about personal saving adequacy would be better addressed through policy such as a relaxation of current restrictions on Individual Retirement Accounts. IRAs provide broader and stronger savings incentives by exempting from taxation not only dividend income but also interest and capital gains. And while a capped dividend exclusion might simplify income tax filing for some individuals with small amounts of dividend income, a full dividend exclusion would do the same thing and much more.

A capped dividend exclusion won’t promote better corporate governance or enhance short- or long-term economic growth prospects. In terms of economy-wide benefits, a full or partial exclusion (e.g. 50 percent), or a reduction in the tax rate on dividend income, offers “bang for the buck” that a capped approach simply does not.

---

1 Under a full exclusion, taxpayers would not be required to include any “excludable” dividends in the computation of taxable income on their individual income tax returns. The president’s plan specifies as excludable dividends those on which corporate income taxes have been paid.

2 A proportional exclusion, such as a 50 percent exclusion, would apply to all taxable dividends.


HOW THE TOP INDIVIDUAL INCOME TAX RATE AFFECTS SMALL BUSINESSES

May 6, 2003

Taxpayers in the highest income bracket are often entrepreneurs and small business owners, not just highly-paid executives or people living off their investments. Small business owners typically report their profits on their individual income tax returns, so the individual income tax is effectively the small business tax. Recent economic research shows that individual taxes have a significant impact on the decisions of small business owners. In particular, lowering the highest marginal tax rate encourages small businesses to hire, invest, and grow.

Many small businesses pay taxes through the individual income tax system
Small businesses generally pay their income taxes through the individual income tax system, not the corporate tax system. Sole proprietorships, partnerships, and S corporations are the three main organizational forms chosen by small business owners. Under the tax code, each of these three small business types pays taxes at the same rates paid by individuals. In a sole proprietorship, the income from the small business is taxed on the business owner’s individual income tax return. In the case of partnerships and S corporations, which typically have multiple owners, income from these businesses is divided among the various owners and taxed on their individual tax returns.

Small businesses frequently pay the highest marginal tax rate
Taxpayers in the highest bracket currently face a marginal tax rate of 38.6 percent. Although they file slightly less than one percent of all tax returns, these taxpayers account for 16.7 percent of reported income and more than 31.1 percent of individual income tax payments.

Small business owners receive almost 80 percent of the tax relief from reducing the top marginal tax rate to 35 percent.
Of the 750,000 tax filers that would benefit from a reduction in the highest marginal tax rate, more than two-thirds (over 500,000 filers) have some small business income from a sole proprietorship, partnership, or S corporation. These small business owners would receive 79 percent of the $13.3 billion in tax savings from reducing the top marginal rate to 35 percent in 2003 instead of 2006.\(^4\)

**Lower marginal tax rates encourage investment by small businesses**

Small business owners will choose to invest when the expected after-tax return on a particular investment is higher than its cost, including financing expenses. Higher marginal tax rates on the income from an investment reduce its after-tax return, making it harder for a small business owner to justify undertaking that investment.

Higher marginal tax rates also increase an entrepreneur’s total tax bill, leaving less money available for new investment. Since small businesses—especially sole proprietors—often encounter difficulties obtaining loans necessary to make investments due to financing constraints, more money to the government through higher taxes on small businesses can mean lower levels of investment.

Economists who have studied the effects of taxes on sole proprietorships have found that high marginal tax rates discourage entrepreneurs from investing in new capital equipment and, conversely, that reducing taxes encourages new investment.\(^5\) For example, the marginal rate reductions enacted by the Tax Reform Act of 1986 (TRA86) significantly increased investment by sole proprietorships. The experience of those rate reductions suggests that a five percentage point reduction in the marginal tax rate faced by entrepreneurs increases small business investment by 10 percent—a increase in excess of $10 billion.\(^6\) This research suggests that cutting marginal tax rates—particularly the top 38.6 percent rate faced by many small businesses today—is an effective way of encouraging entrepreneurs to invest in and expand their businesses.
Research suggests that a five percentage point reduction in the top marginal tax rate would increase small business investment by ten percent.

Lower marginal tax rates also encourage small business hiring
Another important decision an entrepreneur faces is whether to hire other workers to help run a small business or, rather, to forgo hiring and simply go it alone. At higher marginal tax rates, hiring employees can become a less attractive proposition as a higher fraction of any additional income that a new hire might generate for the business is taxed and diverted to the federal government. Also, as in the case of an entrepreneur’s decision about whether to invest in new equipment, the greater the amount of a small business’ income paid in taxes, the smaller the amount available for paying the salaries of employees. What happens to the top marginal rate is especially relevant, since entrepreneurs in that tax bracket are the ones most likely to hire employees.

One study that looked at how the marginal tax rate reductions of TRA86 affected the hiring patterns of sole proprietorships found that marginal tax rate cuts make entrepreneurs more likely to hire workers and, on average, pay more in wages. In particular, the study’s authors found that a marginal tax cut that lowers a small business owner’s marginal tax rate by 10 percent would increase the likelihood of hiring employees by 10 percent. The President’s proposal to bring the top marginal rate down from 38.6 percent to 35 percent (a 10 percent decrease) would have such an effect. Such a tax cut would also increase average entrepreneurs’ wage payments by 3 to 4 percent for those that do hire, reflecting better wages for those employed by small businesses.
Marginal rate cuts increase the likelihood that a small business owner hires employees and lead to higher wages for those workers.

New investment and hiring lead to small business growth

New hiring and greater investment induced by lower marginal tax rates lead to growth of small businesses. When an entrepreneur hires new workers to assist with operation of the business, that company’s earning potential naturally increases. Investment also promotes small business growth, since how much a worker can produce for a company depends on the amount and quality of the equipment that the worker has to work with. That is why when low marginal tax rates spur a business to make new capital investments in software, computers, or machinery, for example, that company’s workers become more productive, causing the company to grow. One study has shown that when the marginal tax rate for small businesses is reduced by 10 percent, those businesses’ gross receipts increase by over 8 percent. One example of a 10 percent rate reduction is the drop in the top marginal income tax rate from 38.6 percent to 35 percent, as has recently been proposed by the president.

Small businesses are a crucial part of the nation’s economy

Small businesses are a crucial component of the nation’s economy, accounting for a significant share of economic activity. More than 98 percent of all companies have fewer than 100 employees. These companies are responsible for almost 36 percent of total employment. More than one out of every two employees works at a company with fewer than 500 employees. In light of the negative effect that marginal tax rates have on entrepreneurs’ hiring decisions, it is clear that the top marginal rate affects many more workers than just those whose incomes fall in the top rate bracket.

Small businesses are important to the national economy not only for the jobs they provide, but also for the investment they undertake, spurring economic growth. While investment data is not available for partnerships and S corporations, it has been estimated that sole proprietorships alone account for at least 10 percent of business
investment in the economy. Investment by small businesses, given their prominent role in the broader economy, is thus an important element for economic recovery as the nation emerges from a recession that has been characterized by solid consumer spending growth but lagging investment.

1 An S corporation is a form of corporation, allowed by the IRS for many companies with 75 or fewer stockholders, which permits the company to enjoy benefits of incorporate but which is taxed as a partnership.

2 Partnerships give each partner a Schedule K-1, which details the partner’s share of income, credits, and deductions from the partnership; S corporations similarly give a K-1 form to each of their shareholders. Individual partners and shareholders then use these K-1s to report income from their businesses on Schedule E of their individual income tax returns.


6 See note 5. Carroll et al. (2000) calculate that sole proprietorships alone in 1993 accounted for 10 percent of nonresidential fixed investment, which currently stands at over $1.1 trillion.


10 While some of these smaller companies may be C corporations taxed through the corporate tax system, a large share are nonetheless sole proprietorships, partnerships, or S corporations taxed through the individual tax system.

11 See note 6.
March 12, 2003

Last week the Joint Committee on Taxation (JCT) estimated the President’s economic growth package would reduce taxes by $726 billion over the next 11 years (FY2003-2013), more than any other published estimate. However, even the JCT estimate may not be as much as it appears. It is important to keep in mind that over the next 11 years the federal government will collect nearly $30 trillion in taxes. So, $726 billion represents just 2.4% of all the taxes that would be paid by taxpayers.

The JCT estimate is largely a “static score,” meaning it doesn’t account for how individuals and businesses respond to taxes. Private, independent “dynamic scores” estimate the economic growth package would reduce taxes less than $726 billion. For example, the Heritage Foundation estimates the package would reduce taxes by only $276 billion. Visit the Joint Economic Committee on-line at jec.senate.gov for more information.
Economic Growth Package Compared with Existing Taxes Each Fiscal Year

- JCT Estimate of Taxes Eliminated by Economic Growth Package
- Taxes Still Paid

Sources: Joint Committee on Taxation & Congressional Budget Office
WHO BENEFITS FROM ENDING 
THE DOUBLE TAXATION OF DIVIDENDS?

February 2003

EXECUTIVE SUMMARY

President Bush’s proposal to end the double taxation of dividends has been criticized as a tax break for the rich because high income individuals receive the majority of taxable dividends. If dividend taxes were eliminated, these individuals would pay less in taxes; to many observers, this suggests that eliminating dividend taxes would benefit the wealthy and no one else.

Although this reasoning appears intuitive, it is fundamentally flawed. Decades of economic research have demonstrated that paying a tax is not the same as bearing the economic burden of a tax. Economists of all ideologies and political affiliations have long been careful to draw this distinction. Unfortunately, this insight is often forgotten in political debates over tax policy. This report 1) explains the distinction between paying a tax and bearing the burden of a tax, and 2) applies that insight to the current debate over dividend taxes. It finds:

- Paying a tax differs from bearing the burden of a tax because people change their behavior in response to taxes. This distinction can be demonstrated by two real world examples: 1) the tax exemption for municipal bond interest favors state and local governments much more than it favors the high income investors who appear to be receiving the exemption and 2) the 1990 luxury tax on yachts was ultimately borne by average workers rather than yacht purchasers.

- The distributional impacts of tax relief proposals are often judged by looking only at how tax payments are currently distributed across income levels. Such “static” analyses ignore the ways individuals and markets respond to taxes. “Dynamic” analyses account for these responses and, thereby, identify the true distributional burdens of existing taxes and the true benefits of tax relief.

- Capital markets are particularly sensitive to taxes. For that reason, policymakers should use dynamic analyses, not static analyses,
when analyzing changes in the tax treatment of dividends or other forms of capital income.

- Dynamic analyses show that the economic burden of dividend taxes – and the economic benefit of eliminating them – is spread much more broadly through the economy than static tax payment analyses suggest. Lowering the tax burden on dividends will reduce the cost of capital for businesses, leading to higher stock prices, increased investment, and greater economic growth.

- Eliminating dividend taxes will increase stock prices significantly. This increase will benefit all stockholders, even those who hold stocks in tax-advantaged accounts (e.g., pensions, 401(k)s, and retirement accounts). Investors do not have to pay dividend taxes to benefit from their elimination.

- Eliminating dividend taxes will accelerate economic growth by increasing incentives to save and invest, strengthening our international competitiveness, and improving corporate governance. Increased investment and economic growth will boost wages and salaries for American workers, will lower prices for consumers, and will boost investment returns. Eliminating dividend taxes will therefore benefit all Americans.

In my judgment, the elimination of the double taxation of dividends will be helpful to everybody. ... There is no question that this particular program will be, net, a benefit to virtually everyone in the economy over the long run, and that's one of the reasons I strongly support it.

Alan Greenspan

Economists draw a distinction between who pays a tax and who actually bears the economic burden of that tax. Identifying who pays a tax is usually straightforward since that person is the one who writes a check to the government. Identifying who bears the burden of a tax is often much more complicated. Individuals and markets respond to taxes in ways that shift some or all the economic burden away from the individuals who pay the tax and onto other individuals. Distributional analyses that ignore these dynamic effects can be highly misleading.

This report explains the economic distinction between paying a tax and bearing the burden of a tax, illustrates this distinction with several real
world examples, and applies this insight to current proposals to end the double taxation of dividends. The key finding is that the benefits of ending the double taxation of dividends will be distributed much more broadly in the economy than critics have suggested.

**PAYING A TAX ISN’T THE SAME AS BEARING THE TAX**

To illustrate the difference between paying a tax and bearing the burden of a tax, it is useful to begin with a simple example. Suppose that flashlights currently sell at retail for $10 a piece. One day the federal government decides to collect a $2 tax from retailers for each flashlight they sell. Who bears the burden of this tax? The answer depends on how much retailers increase the price of flashlights and how much consumers reduce their purchases of flashlights.

**Retailers May Increase Prices in Response to the Tax**

Retailers bear the burden of the flashlight tax in a static accounting sense since they are responsible for writing the check to the government. This does not mean that they bear the economic burden of the tax. Retailers will likely increase the price of flashlights, shifting some of the tax burden to consumers. If retailers increase prices to $11 per flashlight, for example, they share the tax equally with consumers: retailers receive $1 less, after-tax, for each flashlight they sell, while consumers pay $1 more.

Another possibility is that retailers would shift the entire tax onto consumers by raising prices to $12 per flashlight. In this case, consumers bear 100 percent of the tax burden even though retailers are the ones writing checks to the government. At the other extreme, it is also possible that retailers would absorb the entire tax and keep prices at $10 per flashlight. In this case – and this case only – the burden of the tax falls entirely on the retailers who write checks to the government. These possibilities are summarized in Box 1.
In practice, the price change — and, therefore, the sharing of the tax burden — depends on a host of market-specific factors such as the availability of alternative products, consumer preferences, and the cost structure of the business. These factors can differ substantially from case to case. The economic burden of taxes thus has no necessary relationship to the act of actually paying the taxes. Distributional analyses of tax policy should focus on true economic burdens, not on the mere accounting of tax payments.

**Consumers May Buy Fewer Flashlights Because of the Tax**

The analysis of price changes tells us how retailers and consumers share the economic burden of paying taxes to the government. Taxes also create a second burden: reductions in output. To illustrate, suppose that the $2 tax raises the retail price of a flashlight by $1. Consumers will respond to this price increase by decreasing the number of flashlights that they purchase. Businesses, in turn, will produce fewer flashlights. This output reduction means that both consumers and retailers are worse off: consumers purchase fewer flashlights than they otherwise would want, and retailers have lower profits. The rest of the flashlight supply chain — manufacturers, distributors, and their employees — also bear some economic loss because of the output reduction.

Because of output losses, the economic burden of taxes exceeds, sometimes substantially, the tax revenue collected by the government. This “excess burden” is the fundamental economic cost of taxation.
The sharing of this burden depends on the same market-specific factors – the availability of alternative products, consumer preferences, costs, etc. – that determine the sharing of price changes.

TWO PRACTICAL EXAMPLES

The flashlight example illustrates the key issue in tax distribution: writing a check to the government may have nothing to do with bearing the burden of a tax. Price changes can shift the burden away from the taxpayer (e.g., when retailers pass taxes on to their customers), while quantity reductions due to taxes represent a significant economic burden that results in no tax revenue whatsoever.

Economists have applied this theory – and confirmed its relevance – for myriads of different markets and different taxes. Two of the clearest examples, with particular relevance to the current dividend tax debate, are the luxury tax on yachts and the tax exemption of interest on municipal bonds.

The Luxury Tax on Yachts

In 1990, Congress introduced a new federal sales tax on private boats costing more than $100,000 and various other products deemed to be luxuries. The government’s intent was to raise additional revenue by levying a tax on the rich; after all, who else would purchase a private boat costing more than $100,000? Unfortunately, demand for such boats turned out to be very responsive to price changes – many potential boat buyers were unwilling to accept substantial price increases. At the same time, boat manufacturers were unable to absorb much of the tax. When they tried to raise prices, boat purchases declined, and manufacturers were forced to lay off a significant number of their workers.

Because yacht sales fell, the tax on the rich became a tax on the average worker. When the broad economic impacts of the tax became apparent, Congress reversed course and eliminated the luxury tax on yachts and several other products.

The Tax Exemption for Municipal Bonds

The luxury tax illustrates how a tax aimed at the rich may ultimately be borne by average Americans. The tax exemption for municipal bonds illustrates the same idea, but in reverse: the tax exemption appears to be a tax break for high income, high tax bracket individuals but turns
out to benefit state and local governments and, thereby, average Americans.

Under current tax law, interest payments from most municipal bonds are exempt from federal taxes. This exemption is most valuable for individuals in the highest tax brackets, so most of these bonds are held by high income, high tax bracket investors. Indeed, ownership of tax-exempt municipal bonds may be even more skewed toward high income earners than is ownership of dividend paying stocks.5

A static analysis – one that focuses solely on who pays taxes to the government – would suggest that the tax exemption is a major boon for rich investors. After all, those investors get to earn tax-free interest on the bonds. The flaw in this reasoning is the fact that the interest rate that investors receive on tax-exempt debt is much lower than they could receive on comparable investments. Investors compete among themselves to get the best after-tax returns on their investments. This competition passes much of the benefit of tax exemption back to state and local governments in the form of lower interest rates, making it cheaper and easier to finance schools, roads, and other local projects.

Demonstrating this dynamic requires little effort beyond surfing to a financial web site and doing some simple arithmetic. At this writing, a leading web site reports that the average two-year municipal bond of highest quality yields 1.13 percent (i.e., an investor purchasing $10,000 of two-year municipal bonds would receive interest payments of $113 per year). At the same time, the average two-year Treasury yields 1.59 percent.

U.S. Treasuries are widely considered to be the safest investments in the world, yet they pay substantially more interest than do municipal bonds. Why? Because interest on municipal bonds is exempt from federal taxes.

At these interest rates, more than 80 percent of the benefit of the tax exemption goes to the municipalities that issue tax-exempt bonds; less than 20 percent goes to investors. To see this, consider what would happen if municipal bonds did not receive a tax exemption. In that case, their debt would have to pay at least as much interest as is currently paid on comparable Treasuries. To make things simple (if somewhat unrealistic, given the higher risk of municipal bonds)
Suppose that absent the tax exemption, municipal bonds would also pay 1.59 percent in annual interest.

Suppose further that the average investor in municipal bonds invests $10,000 and that he faces a marginal tax rate of 35 percent, the highest rate under the President's economic proposal. At a 1.59 percent interest rate, the investor would receive $159 in interest per year from either a two-year Treasury or a taxable two-year municipal bond. With a tax rate of 35 percent, the investor would pay taxes of $56 and receive an after-tax return of $103 (see Box 2).

Now consider what happens if, as in reality, the municipal bond is tax-exempt. The federal government receives no tax revenue from the bond interest, so it loses $56 in revenue each year. The municipality sees its borrowing cost fall from 1.59 percent to 1.13 percent, so it realizes a benefit of $46 (= $159 - $113) on each $10,000 in debt. The investor sees his after-tax return increase from $103, the amount he could earn on taxable bonds, to $113, and so he realizes a benefit of $10 per year.

**Box 2: The Distributional Impacts of Exempting Interest from Federal Taxes**

Example: Suppose an investor purchases $10,000 of bonds; the investor is in the 35% tax bracket.

<table>
<thead>
<tr>
<th>Taxable</th>
<th>Tax-Exempt</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>The Perspective of the Local Government</strong></td>
<td></td>
</tr>
<tr>
<td>Bonds Sold</td>
<td>$10,000</td>
</tr>
<tr>
<td>Interest Rate</td>
<td>x 1.59%</td>
</tr>
<tr>
<td>Annual Interest Payments</td>
<td>$159</td>
</tr>
</tbody>
</table>

The tax exemption benefits the local government: interest costs are lower by $46 (= $159 - $113).

| **The Perspective of the Federal Government** | | |
| Interest Payments | $159 | $113 |
| Tax Rate on Interest | x 35% | x 16% |
| Federal Tax Revenue | $56 | $0 |

The tax exemption costs the federal government: tax receipts are lower by $56.

| **The Perspective of the Investor** | | |
| Interest Received | $159 | $113 |
| Taxes Paid | $56 | $0 |
| After-Tax Return | $103 | $113 |

The tax exemption benefits the investor: after-tax returns are higher by $10 (= $113 - $103).

**Lesson:** Tax breaks on interest primarily benefit local governments who need financing, not the investors who provide that capital.

The tax exemption primarily benefits municipalities: 82 percent (= 46/56) of the tax savings accrue to state and local governments, while
only 18 percent (= 10/56) of the benefits accrue to investors. Benefits to state and local governments are passed on to their citizens through a combination of lower taxes and increased government services.

This analysis is "dynamic" because it considers how taxes influence the interest rates paid by municipal bonds. Just as flashlight retailers could pass on a significant portion of that tax to consumers, investors pass on to local governments the benefit of their tax exemption.

To illustrate the importance of such dynamic analysis, it is useful to compare these results to the calculations that would comprise a "static" analysis that ignores capital market responses.

---

**Box 3: Why Static Analyses Are Flawed**

This box repeats parts of the previous analysis, but makes the static (and faulty) assumption that interest rates are unaffected by taxes. Changes from the dynamic analysis are indicated.

<table>
<thead>
<tr>
<th>Taxable</th>
<th>Tax-Exempt</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>The Perspective of the Investor</strong></td>
<td></td>
</tr>
<tr>
<td>Bonds Purchased</td>
<td>$10,000</td>
</tr>
<tr>
<td>Interest Rate</td>
<td>x 1.13%</td>
</tr>
<tr>
<td>Interest Received</td>
<td>$113</td>
</tr>
<tr>
<td>Tax Rate on Interest</td>
<td>x 35%</td>
</tr>
<tr>
<td>Taxes Paid</td>
<td>$40</td>
</tr>
<tr>
<td>After-Tax Return</td>
<td>$73 (= $113 - $40)</td>
</tr>
</tbody>
</table>

The static analysis makes it appear that investors receive a $40 benefit (= $113 - $73) from the tax exemption; in reality, the benefit is about $10, as shown in the dynamic analysis.

| **The Perspective of the Local Government** | | |
| Bonds Sold | $10,000 | $10,000 |
| Interest Rate | x 1.13% | x 1.13% |
| Annual Interest Payments | $113 | $113 |

The static analysis makes it appear that local governments receive no benefit from the tax exemption; in reality, they receive a benefit of about $46, as shown in the dynamic analysis.

**Lesson**: The static analysis ignores how interest rates respond to taxes. As a result, it misses a key dynamic: competition in capital markets forces investors to pass much of the benefit of the tax exemption on to local governments as lower interest rates. Static analyses thus provide a completely misleading assessment of the impacts of exempting interest from federal taxes.

---

In a static framework (see Box 3), the analysis would begin by assuming that investors in municipal bonds earn $113 in interest for each $10,000 of bonds that they own, regardless of whether that interest is taxed or not. If this interest were taxable, the investor would pay $40 in taxes (= $113 x 35%). The static analysis thus concludes
that the tax exemption provides a $40 benefit to the investor and no benefit to local governments (since there is no change in interest payments).

These calculations illustrate how far static analyses can deviate from economic reality. Under the obviously flawed (and often concealed) assumption that individuals and markets do not respond to taxes, the static analysis finds that the tax exemption provides significant benefits to high income investors and identifies no benefits for state and local governments. The dynamic analysis, in contrast, identifies the fundamental economics associated with the tax exemption: high income investors do receive some benefit, but the vast majority of the benefit flows to those who need financing – the state and local governments – not those who provide the capital.

**THE BENEFITS OF ELIMINATING DIVIDEND TAXES**

The municipal bond example illustrates a fundamental truth about taxes on capital: capital markets distribute the burden of taxes (and the benefit of tax breaks) depending on market conditions, not on the accounting issue of who writes checks to the government. Because of competition among different types of investment, the vast majority of the tax benefits go to governments who need financing, not the investors who provide that capital. In other words, the tax exemption makes it cheaper and easier to finance roads, schools, and other local projects; it is not a give-away to the rich.

The same dynamic forces will be unleashed by ending the double taxation of dividends. Lowering the tax burden on investing will reduce the cost of capital for businesses, thereby boosting stock prices and increasing investment. Benefits will flow not only to investors who currently receive taxable dividends, but to all stockholders and to the businesses that need to raise capital. Those businesses will then pass on the benefits to their employees, customers, and investors.

**Eliminating Dividend Taxes Will Lower the Cost of Capital**

Many businesses raise capital by selling stock. To get investors to purchase their stock, businesses must offer them a sufficiently high rate of return on their investment. This required rate of return is the cost of capital for the business.

The cost of capital depends on a host of factors, including the other investment options that investors have, the risk of investing in the
business, and the taxes investors have to pay on their investment returns. If taxes on capital income decline, the cost of capital goes down, and businesses find it cheaper and easier to raise capital.

To illustrate, suppose that investors in a particular business demand an after-tax return of 6.5 percent per year; for simplicity, assume that this return will be achieved entirely through dividends. If dividends were tax-exempt, the cost of capital for the business would be 6.5 percent. In other words, for every $100 of capital that the business raises, it would have to provide investors with dividends of $6.50 per year.

### Box 4: Taxes Increase the Cost of Capital

Suppose that investors demand a 6.5% after-tax return and all returns are paid as dividends:

<table>
<thead>
<tr>
<th>If Dividends are Tax-Exempt</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Investors' Required After-Tax Return</td>
<td>6.5%</td>
</tr>
<tr>
<td>Additional Return to Cover Taxes</td>
<td>+0.0%</td>
</tr>
<tr>
<td>Cost of Capital for the Business</td>
<td>6.5%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>If Dividends are Taxed at 35%</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Investors' Required After-Tax Return</td>
<td>6.5%</td>
</tr>
<tr>
<td>Additional Return to Cover Taxes</td>
<td>+3.5%</td>
</tr>
<tr>
<td>Cost of Capital for the Business</td>
<td>10.0%</td>
</tr>
</tbody>
</table>

**Lesson:** Taxes increase the cost of capital.

If, as in reality, dividends are taxed, the cost of capital is substantially higher. In order to provide an after-tax return of 6.5 percent, the business must provide a dividend yield of 10 percent. In other words, for every $100 of capital that the business raises, it would have to provide investors with dividends of $10 per year. At a 35 percent tax rate, $3.50 of those dividends would go to the government, leaving $6.50 for the investor. The after-tax return would thus meet the 6.5 percent requirement. These calculations are summarized in Box 4.

Taxes thus raise the cost of capital. Eliminating dividend taxes would lower the cost of capital for businesses in the same manner that the tax exemption for municipal bonds lowers the cost of capital (i.e., interest rates) for state and local governments.⁸
Eliminating Dividend Taxes Will Increase Stock Prices

By lowering the cost of capital, eliminating dividend taxes will provide an immediate boost to stock prices. Taxable investors will find stocks — both those that currently pay dividends and those that may pay dividends in the future — to be more attractive, so they will shift resources into stocks and bid up their prices.

To illustrate, suppose that the company in the example pays $10 per share in dividends every year and that investors demand an after-tax return of 6.5 percent. As demonstrated in Box 4, under current tax law the company has to provide a 10 percent pre-tax return in order to provide investors with a 6.5 percent return after-tax. As illustrated in Box 5, the stock will provide a 10 percent return if the stock price is $100 per share. At that price, the dividend yield is 10 percent (= $10 / $100), and the after-tax rate of return is 6.5 percent (= $6.50 / $100).

If dividend taxes were eliminated, the stock’s value would increase to as much as $154 per share — a gain of more than 50 percent. At this stock price, the $10 dividend (tax-free) would provide investor’s with an after-tax rate of return of 6.5 percent (6.5% = 10 / 154).

In the real world, the increase in stock prices will not be quite so dramatic. Stock price gains will be mitigated because many companies reinvest their earnings rather than paying them out as dividends and because many stocks are held in tax-exempt accounts — pensions, 401(k)s, endowments, etc. These factors weaken the link between dividend taxes and stock prices, but do not eliminate it. A substantial body of economic research has documented that dividend taxes do raise the cost of capital and, thereby, lower stock prices.9
Financial economists have estimated that eliminating dividend taxes would increase stock prices substantially; recent estimates range from six to thirteen percent. The increase would be most pronounced for stocks that already have high dividend payouts, but would also occur for stocks that are likely to introduce dividends in the future. Financial markets are well aware of the dividend tax debate, so some of this gain has already been built in to stock prices. Stock prices will rise further if Congress agrees to eliminate dividend taxes and, conversely, will fall if Congress leaves dividend taxes untouched.

The key distributional issue here is that rising stock prices benefit all stock investors, not just those who receive taxable dividends. Investors in 401(k)s, IRAs, and pension plans benefit in exactly the same way as investors who own taxable stocks and mutual funds. Recent surveys demonstrate how widely this benefit will be distributed. According to the Investment Company Institute and the Securities Industry Association, about half of U.S. households owned stock in 2002; these 53 million households comprise more than 84 million individual investors. All of these investors will benefit from the elimination of dividend taxes.

Eliminating Dividend Taxes Will Increase Investment

As noted earlier, the economic analysis of taxes distinguishes between price and quantity responses. The price effect of eliminating dividend taxes is to lower the cost of capital. As demonstrated, the lower cost of capital immediately translates into higher stock prices.
The quantity effect of eliminating dividend taxes is that a lower cost of capital encourages greater investment. Some projects and companies that would not be profitable investments under existing dividend taxes would become profitable with the lower cost of capital.

**Box 6: A LOWER COST OF CAPITAL BOOSTS INVESTMENT**

An investor can invest $100 in a new company that will provide an 8% return paid as dividends. The investor requires an after-tax return of 6.5%.

**If Dividends are Taxed at 35%**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual Dividend</td>
<td>$8.00</td>
</tr>
<tr>
<td>Taxes at 35 percent rate</td>
<td>$2.80</td>
</tr>
<tr>
<td>After-Tax Return</td>
<td>$5.20</td>
</tr>
<tr>
<td>After-Tax Rate of Return</td>
<td>5.2%</td>
</tr>
</tbody>
</table>

The investor will not fund this company; the after-tax return is less than his 6.5% requirement.

**If Dividends are Tax-Exempt**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual Dividend</td>
<td>$8.00</td>
</tr>
<tr>
<td>Taxes</td>
<td>$0.00</td>
</tr>
<tr>
<td>After-Tax Return</td>
<td>$8.00</td>
</tr>
<tr>
<td>After-Tax Rate of Return</td>
<td>8.0%</td>
</tr>
</tbody>
</table>

The investor will fund this company; the after-tax return exceeds his 6.5% requirement.

**Lesson:** A lower cost of capital boosts investment.

To illustrate, suppose that the investor in our example has the opportunity to invest in a new company (see Box 6). For every $100 that the investor puts in, the company will pay back $8 in dividends each year. Under the current tax system, this investment would not be acceptable to the investor: the $8 dividend would be accompanied by a $2.80 tax liability. The net return to the investor is thus $5.20, so the after-tax return is only 5.2 percent, well below the investor’s required rate of return of 6.5 percent. Under current tax law, the investor would not be willing to invest in this new company.

If dividend taxes were eliminated, however, the investor would be willing to back this new venture. The dividend would then be worth a full $8 after-tax, and the investor would realize a rate of return of 8
percent—$8 for every $100 invested—well above his required rate of return.

Of course, the new company might be able to drive a better bargain and get a better price for its stock (i.e., the stock price would rise). In the end, however, the company and the investor would be able to agree on a price that allows the venture to go forward. By lowering the cost of capital, eliminating dividend taxes makes it easier to finance new investment.

**ELIMINATING DIVIDEND TAXES WILL ACCELERATE ECONOMIC GROWTH**

Eliminating dividend taxes thus has three direct effects: it lowers the cost of capital for businesses, boosts stocks prices, and encourages new investment. In the short-run, higher stock prices will help to support consumer spending and the lower cost of capital will encourage business investment. Eliminating dividend taxes will thus provide a boost to the economic recovery and benefit Americans of all incomes.

In the longer run, eliminating dividend taxes would promote economic growth in several ways:

- First, as noted, it would encourage greater investment. Investment expands the capital stock so workers will have more factories and equipment with which to produce goods and services. The expanding capital stock creates greater productivity and faster long-run growth. As productivity rises, employers are willing to pay more to attract needed workers. Eliminating dividend taxes will thus boost wages and job prospects throughout the economy.

- Second, eliminating the double taxation of dividends would improve corporate performance. The current tax system encourages businesses to rely excessively on debt, leading to unnecessary bankruptcy risk when economic conditions change. The current tax system also penalizes the payment of dividends and, thereby, limits the degree to which shareholders can use dividends to monitor corporate performance. As we have learned, relying on accounting statements of earnings—which may be unrelated to the cash generating ability of a company—can lead to investment mistakes.
Finally, eliminating personal taxes on dividends would improve the international competitiveness of the U.S. economy. Almost all other developed countries have reduced or eliminated the double taxation of dividends. In fact, the United States has the second highest combined tax rate on dividends—corporate plus personal—among the 30 members of the OECD. Eliminating dividend taxes in the United States would make America a more desirable location for international investment.

By boosting economic growth in these ways, eliminating dividend taxes will naturally result in higher incomes, new jobs, and lower prices, providing important benefits to all Americans.

Recent studies of the dividend tax proposal suggest that these dynamic benefits are significant. A study prepared for the Business Roundtable (2003), for example, finds that the dividend tax cut would add a trillion dollars to cumulative GDP over the next decade and that employment would be higher by an average of 600,000 jobs each year over that period. Analyzing a slightly different dividend tax proposal, the Heritage Foundation finds that employment would be higher by an average of 300,000 jobs each year over the next decade, and that economic output, personal incomes, and overall investment would all expand significantly.

Dividend tax relief thus provides significant economic benefits throughout the economy.

CONCLUSION

Static analyses of eliminating the double taxation of dividends emphasize that most taxable dividends currently go to individuals with high incomes. Many observers conclude from these analyses that the benefits of dividend tax relief will disproportionately favor the rich. Although this reasoning appears to be intuitive, it is fundamentally flawed. As documented in this report, eliminating the double taxation of dividends will benefit essentially all Americans, in their roles as stockholders, workers, and consumers.

The fundamental flaw in static analyses is the assumption that tax changes can be analyzed without considering how people and markets will respond. Static analyses may be useful when analyzing taxes that induce small responses, but they can be wildly inaccurate when
Capital markets are particularly sensitive to tax changes; as a result, policymakers should be particularly skeptical of static analyses of changes in the tax treatment of dividends or other forms of capital income.

Eliminating dividend taxes is likely to generate much broader benefits than static analyses would suggest. Increases in stock prices, for example, will benefit all stockholders, not just those who receive taxable dividends. Increased investment and faster economic growth will provide workers with more employment opportunities and higher wages, while consumers will enjoy lower prices. Recipients of taxable dividends will receive significant benefits from eliminating dividend taxes, but so will all participants in the U.S. economy.

1 Testimony before the House Financial Services Committee, February 12, 2003.

2 Under current tax law, the profits that businesses earn are taxed twice: first as corporate profits and a second time as dividends or capital gains received by investors. The tax on corporate profits is 35 percent and the personal income tax on dividends is as much as 38.6 percent, so the combined tax rate on dividends can be more than 60 percent. President Bush has proposed ending double taxation by exempting dividends from personal income taxes.

3 Such statements can be found in any reputable textbook on public finance. For example: “Because prices may change in response to the tax, knowledge of statutory incidence tells us essentially nothing about who is really paying the tax” (Rosen 1992, p. 275).

4 See Joint Economic Committee (1992, p. 159 ff) for further details on the luxury tax.


6 This particular result reflects market conditions on a particular day for a particular group of bonds. Impacts vary over time and across bonds depending on a host of factors, not least of which is ongoing debate about tax policy. Nevertheless, several decades of academic research have confirmed this general pattern: municipal tax exemption primarily benefits municipalities who issue debt; benefits to investors are much smaller. Fortune (1992), for example, finds that municipalities received at least three-quarters of the benefit of the tax exemption in 1990.

7 This analysis is partially dynamic because it considers the dynamics of price changes (the change in interest rates) but not the dynamics of quantity changes. Measuring the distributional impacts of quantity changes would require information about the types of projects that municipalities are able to finance with tax-exempt debt, but wouldn’t finance otherwise, and the beneficiaries of those projects. It would also require additional information about how such projects influence federal revenues.
The numerical example is extreme in several ways: it assumes that all returns come in the form of dividends and it assumes that the relevant investors are all in the 35 percent tax bracket. In reality, some returns will likely come in the form of capital gains and some of the relevant investors will be in lower tax brackets. The quantitative impact of eliminating dividend taxes will thus be smaller than the 35 percent in this example. The qualitative story remains the same, however. Dividend taxes are built into investors’ required rate of return. If dividend taxes are eliminated, the cost of capital will decline significantly.

Gentry, Kemsley, and Mayer (2003) survey this literature and provide new evidence that dividend taxes lower stock prices. Harris, Hubbard, and Kemsley (1999) demonstrate that this effect occurs stock markets around the world.


Michel et al. (2003).

See, for example, Urban-Brookings Tax Policy Center (2003).

Another flaw in static analyses, beyond the scope of the current report, is their focus on tax payments in a single year. This “snapshot” approach conceals the important role that income mobility plays in distributing income tax burdens across individuals across time. The most recent Economic Report of the President (2003, pp. 196 ff.) discusses how tax fairness should be analyzed in terms of lifetime income.


HEALTH CARE

PRESCRIPTION DRUGS ARE ONLY ONE REASON
WHY MEDICARE NEEDS REFORM

June 17, 2003

As Congress considers new Medicare legislation, much of the debate focuses on the need to extend prescription drug coverage to Medicare beneficiaries. That need is certainly pressing and important, but it is not the only reason that Medicare needs reform. Reforms are also needed to:

- **Improve the long-term financial viability of the program.** The impending retirement of the “Baby Boom” generation will dramatically increase the fiscal burden of providing Medicare benefits. Over the next few decades, Medicare costs will double relative to the size of the economy – from 2 percent of GDP today to 4 percent in 2025 – and then double again – to 8 percent of GDP in 2075. This growth will accelerate substantially when Congress adds a prescription drug benefit.

- **Make Medicare more responsive to health care advances.** Medicare’s current structure does not have the flexibility to quickly adapt to rapid advances in modern health care. Medicare lags far behind other insurers in providing prescription drug coverage, disease management programs, and a host of other advances. Reforming Medicare to create a more self-adjusting, innovative structure could improve both the efficiency and quality of the medical care provided.

- **Give beneficiaries greater choice and introduce greater competition between plans.** Giving Medicare beneficiaries greater choice has at least two key advantages: It allows the beneficiaries to be the primary customer, rather than the government or a former employer, while it also creates powerful incentives for all Medicare plans, public or private, to provide the highest quality health at the most competitive price.

These reforms all require that Medicare become more efficient, more flexible, and more responsive – in other words, more market-oriented. Adding a prescription drug benefit isn’t enough.
Improving Medicare’s Long-term Financial Viability

Adding a prescription drug benefit will significantly improve the Medicare benefit package; however, it will also add substantial costs to an already financially vulnerable system. Medicare reform should therefore focus on making the program as efficient as possible with the funds available, or risk a crushing financial burden on the next generation of taxpayers and beneficiaries.

Introducing choice and competition will do much to improve the efficiency of the Medicare program. Beneficiaries with the power to choose among competing plans become the primary consumer that both public and private health plans must attract. Beneficiaries acting as prudent consumers of their own health care indirectly help the taxpayers as well. As beneficiaries choose among competing plans for the highest quality at the best price, they slow the growth in the program for both themselves and the taxpayers.

Chart 1. Medicare Expenditures and Income
(As a percentage of GDP)

The need for such reform is clearly evident in the latest forecasts from the Medicare Trustees. The Trustees forecast that Medicare spending will increase dramatically as the “Baby Boom” generation retires, and that this spending will rapidly outstrip the revenues traditionally used to pay for it. Chart 1 illustrates these financial challenges by relating Medicare’s spending and income sources to the overall size of the economy, as measured by the gross domestic product (GDP). This is the most meaningful way to measure Medicare’s fiscal burdens.
because it compares Medicare spending to the economy’s overall capacity to pay for that spending.

According to the Trustees’ forecasts, Medicare spending will double, relative to the size of the economy, over the next 20 to 25 years – and then double again by 2075. These forecasts are based on Medicare’s current benefits package, so this cost growth will accelerate further when Congress enacts a prescription drug benefit. Even under the current benefit package, funding sources will not come close to covering Medicare’s costs in future years.

Chart 2 illustrates how this upward pressure on Medicare spending is split between demographics and other factors. Demographics certainly compound Medicare’s financial problems, but it is clear that the majority of Medicare’s future financial woes will be driven by explosive health care spending, not demographics. Making Medicare a more efficient, prudent consumer of health care will not close this entire gap, but improved efficiency slows the growth rate resulting in a smaller financial burden for future generations of beneficiaries and taxpayers.

Make Medicare More Responsive to Health Care Advances
Medicare reform also holds the promise of a more innovative, self-adjusting Medicare program for the future. The current Medicare structure results in an inflexible, non-responsive way of delivering medical care. The simple fact that it has taken three decades to add a
prescription drug benefit clearly demonstrates the limits of this structure. New technologies and treatments will continue to be developed; Medicare should be restructured so it incorporates them rapidly, not after another 30 years.

Congress has often countered Medicare’s non-responsive bureaucracy by legislating even the smallest of changes. While responsive to the variety of interests that seek congressional redress, these changes are not always driven by the best science available or in the best interest of the long-run financial and actuarial soundness of the Medicare program. Not surprisingly, it has been simply impossible for Members and staff to craft Medicare directives that keep the program current with the myriad of opportunities and challenges that arise on the front lines of medicine every day.

Fortunately, Congress may draw on decades of experience with more responsive, market-based government health insurance programs that Congress can draw from. For example, the federal employees and retirees program, FEHBP, and the California civil servants and retirees program, CalPERS, have shown that the government and the private market working together can deliver greater responsiveness, innovation, and flexibility, yet deliver cost growth that is comparable to Medicare’s.  

**Give Beneficiaries the Choice of More Comprehensive Health Coverage**

A reformed Medicare program including drug coverage has the potential to offer more comprehensive coverage and improve some of the most significant deficiencies of the current program. Medicare has the least generous benefits package among leading forms of insurance. A recent study by the Congressional Research Service (CRS) found that Medicare benefits have not significantly expanded over the years, while other insurers have significantly expanded what they cover. CRS found that between 1977 and 1999, Medicare increased the percentage of total health care expenses it covered from 53.2 percent to 56.0 percent, not a statistically significant increase. They also found that for the same time period, the percentage of health care expenses paid by private insurers grew from 50.7 percent to 70.0 percent, a statistically significant increase.

A reformed Medicare program where the beneficiaries are the primary customers opens a range of possibilities for innovative benefit design,
including catastrophic coverage, reduced cost-sharing, disease-management programs and other innovations that can be incorporated into the plan’s benefit package without an act of Congress.

**Conclusion**

Medicare reform needs to be about more than adding a prescription drug benefit. Looking ahead, Medicare will face enormous fiscal challenges as the “Baby Boom” generation retires and as the program expands to cover prescription drugs. Looking back, Medicare has a disturbing record of being slow to embrace health care advances and failing to realize the cost and quality benefits that come from customer choice and competition. The challenges that lay ahead will require flexibility and innovation to protect Medicare for future generations.

1 2003 Medicare Trustees Report, pg. 25.


3 “Follow-Up Memorandum To The Distribution Of Total Expenses By Source Of Payments For Two Groups.” Technical memorandum to the Joint Economic Committee, 5/22/03.
Policymakers are considering whether and how to reform Medicare. The “Baby Boom” generation is quickly approaching retirement, and there is a strong desire to add a prescription drug benefit to Medicare. Both these events put increasing pressure on the Medicare program to be as cost efficient as possible. As part of the Medicare reform debate, a question has arisen regarding Medicare’s ability to control costs. Does Medicare have a competitive track record compared to other public and private insurers? How well has Medicare controlled the sometimes explosive growth in health care costs? This report compares the growth rate of Medicare spending with that of a number of other major public and private health insurers over the last two decades.¹

**Principal Findings**

- **FEHBP and CalPERS, the two leading market-oriented government insurance programs, have delivered cost control comparable to Medicare’s, while offering more comprehensive coverage.** FEHBP provides health insurance for federal workers and retirees. CalPERS provides health insurance for California state and municipal workers and retirees.

- **Despite being shielded from rising prescription drug costs, Medicare is no better at cost containment than other government insurance programs.** Over the last two decades the pattern of cost growth per enrollee has been:
  - Medicare costs grew 6.7 percent per year;
  - FEHBP costs grew 6.5 percent per year; and
  - CalPERS costs grew 6.9 percent per year.

- **Medicare has the least generous benefits package among leading forms of insurance.** Medicare covers 56 percent of total health care expenses, while typical employment-based health insurance covers 70 percent.² Also, Medicare does not provide prescription drug coverage; FEHBP, Medicaid, CalPERS, and most private insurers do. Moreover, the Medicare benefits package has not grown significantly since the creation of the program in the mid 1960s; other insurers have consistently expanded the range of services that they cover.³
Medicare's cost growth has been competitive compared to that of other large insurers, but it has not faced the explosive cost of prescription drugs. If FEHBP had not provided drug coverage, its costs would have grown by an estimated 5.8 percent per year over the last two decades; CalPERS' costs would similarly have grown by an estimated 6.4 percent per year. Medicare costs grew 6.7 percent per year over this period.

Cost of Growth of Major Insurers Over the Last Two Decades

Some recent research suggests that Medicare has done a better job of controlling costs than have private insurance plans. While that may be true on the surface, this report reveals that comparing only Medicare and private insurance may be the wrong comparison. Two of the most often cited market-based models for reforming Medicare are two other public insurers: the Federal Employees Health Benefits Program (FEHBP) and the health insurance program of the California Public Employees' Retirement System (CalPERS). This report compares the growth in Medicare spending to the growth in spending in FEHBP and CalPERS, as well as private health insurance and Medicaid. These comparisons adjust for a number of factors that might otherwise distort the comparison, including enrollment growth and benefit differences, for example drug coverage. In order to take into account differences in population growth, the different insurers are compared on a per capita basis. In order to adjust for the most significant differences in benefits, the effects of prescription drugs are factored out for some insurers.

Chart 1. Per Capita Spending Growth for Major Health Insurers, 1983-2002

<table>
<thead>
<tr>
<th>Insurers</th>
<th>Average annual percent change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medicare</td>
<td>6.7%</td>
</tr>
<tr>
<td>FEHBP</td>
<td>6.5%</td>
</tr>
<tr>
<td>FEHBP w/o drugs</td>
<td>5.8%</td>
</tr>
<tr>
<td>CalPERS</td>
<td>6.0%</td>
</tr>
<tr>
<td>CalPERS w/o drugs</td>
<td>6.4%</td>
</tr>
<tr>
<td>Private insurance</td>
<td>9.1%</td>
</tr>
<tr>
<td>Medicaid</td>
<td>7.1%</td>
</tr>
<tr>
<td>GDP</td>
<td>4.9%</td>
</tr>
</tbody>
</table>
Spending growth rates for the different insurers are presented in Chart 1 and Table 1. Many of the insurers show similar patterns in their per capita cost growth over time. Table 1 splits the time period into an earlier and later period of about a decade. All the insurers studied show higher growth rates in the earlier time period and lower in the more current time period.

The time period used was determined by the availability of data for the insurers analyzed, but different time periods could have been used. Focusing on too short a time period results in very misleading conclusions. For example, looking at only the last five or six years would incorporate Medicare’s best performance since Medicare was created and the other insurers’ worst, including two years of negative Medicare growth following the Balanced Budget Act of 1997 (BBA97). Going farther back removes some of the volatility and any short-term advantage of one insurer over another. However, the data from two or three decades ago may not tell us much about what to expect in the current market. The growth rates presented in this report are shown as nominal (non-inflation adjusted) annual rates of change. Per capita Gross Domestic Product (GDP) is also displayed to show how these programs have grown compared to the rest of the economy.

THE MARKET-BASED PUBLIC INSURERS

The California Public Employees’ Retirement System (CalPERS) - Over the past two decades, health insurance spending under CalPERS has grown at an average rate of 6.9 percent per year. CalPERS has covered outpatient prescription drugs, unlike Medicare, so some of this increase reflects the pressure of rising drug costs. When an adjustment is made to remove the estimated effects of prescription drug coverage, the CalPERS growth rate drops to 6.4 percent per year.

CalPERS relies on two levels of competition to help control costs. On one level, health plans compete for access to the CalPERS market. Not all plans are necessarily allowed to offer coverage to the 1.3 million state and municipal employees, retirees and their families. The state negotiates access to their employees and retirees. Plans with unacceptable premiums, quality, access, etc. are kept out. This provides a strong incentive for health plans to offer the best service at the most competitive price or risk not gaining access to the CalPERS market.
The second level of CalPERS competition occurs at the employee/retiree level, where participating health plans compete for market share. Again, this competition is based on a number of dimensions including premium price, quality, and access. In CalPERS, workers and retirees select their own plan from among the competing plans; this choice is not made by an employer or the government. This customer choice presents the health plans with a strong incentive to be responsive to the workers and retirees as their primary customers.

**Federal Employees Health Benefits Program (FEHBP)** – FEHBP shows cost growth comparable to the Medicare program. Over the last twenty years, FEHBP premiums grew at an average annual rate of 6.5 percent, compared to Medicare’s annual average rate of 6.7 percent. Removing the estimated effects of drug coverage from FEHBP to attempt a more “apples to apples” comparison reduces the FEHBP spending growth rate to 5.8 percent per year.¹¹

FEHBP also relies on two levels of competition, but the intensity of the competition is quite different between FEHBP and CalPERS. CalPERS has a generous state contribution, so a number of the plans have no premiums for state workers and retirees. This lack of price competition at the worker/retiree level has provided a stronger incentive for the state’s actuaries and administrators to negotiate even lower premiums at their level. In FEHBP the government never contributes more than 75 percent of any plan’s premium. This ensures premium price competition at the worker/retiree level and therefore the FEHBP actuaries/negotiators are more likely to allow access, as long as the plan’s premiums and benefits are sound in both their actuarial and fiduciary underpinnings.¹²

The main focus of competition in FEHBP is at the worker/retiree level. Health plans have a fixed percentage profit for each subscriber they enroll, therefore plans maximize their profit by maximizing their market share. This structure provides a strong incentive for the plans to treat the workers and retirees – not the employer – as their primary customers. Over the years this competition for market share and the premium price sensitivity of workers and retirees has helped slow the growth of costs. As workers and retirees shop between competing health plans, they slowed the growth in premiums by an average of 15 percent over the time period 1988 to 2002.¹³
The Public Insurers -- Where the Government Sets the Price of Medicare

Cost growth in Medicare averaged 6.7 percent over the two decades analyzed. This is very close to both CalPERS (6.9%) and FEHBP (6.5%). As the data in Chart 1 and Table 1 indicate, Medicare had somewhat of an advantage in not covering outpatient prescription drugs during the time period analyzed.

In addition, a recent study by the Congressional Research Service (CRS) found that Medicare benefits have not significantly expanded over the years, while other insurers have significantly expanded what they cover. CRS found that between 1977 and 1999, Medicare increased the percentage of total health care expenses it covered from 53.2 percent to 56.0 percent, not a statistically significant increase. During the same time period the percentage of health care expenses paid by private insurers grew from 50.7 percent to 70.0 percent, a much larger, statistically significant increase. This coverage growth may be the result of Medicare beneficiaries not enjoying the same out-of-pocket reductions that occurred when other insurers made greater use of managed care plans.

Medicaid -- Cost growth in Medicaid averaged 7.1 percent per year over the time period analyzed. This is roughly comparable to the other major public insurers. In addition, unlike Medicare, Medicaid does cover outpatient prescription drugs and has done so since Medicaid was created in the late 1960s. Medicaid has a number of distinct characteristics that make it difficult to directly compare to other insurance programs. Medicaid covers mostly a low-income and
disabled population and some of their practices could be perceived as ‘government rationing.’ Presumably Medicaid spending would also be lower if the program did not cover drugs during this time period. However, the reimbursement mechanism is so unique that the technique used to remove the estimated effects of covering drugs in FEHBP and CalPERS was not attempted for Medicaid.

**Private Insurance**

Private insurance spending grew at a 9.1 percent rate over the two decades studied. The category “private insurance” includes most employment-based coverage, individual coverage, and other forms of commercial health insurance. Much of this coverage, especially the employment-based, does offer drug coverage, and the per capita costs of that drug coverage are measured directly. Without drug coverage, private insurance would have grown 8.3 percent, rather than 9.1 percent. Perhaps most importantly, this category captures a wide range of health insurance from the largest corporations to the self-employed. Although some large employers can take advantage of significant economies of scale, smaller employers and individuals cannot; as a result, cost-reducing economies of scale do not reduce costs for private insurance to the extent they do in the other categories. In addition, this category includes the supplemental policies Medicare beneficiaries purchase in order to obtain drug coverage. Therefore, direct comparisons between this category and the other categories can be difficult.

**Gross Domestic Product (GDP)**

Growth in per capita GDP is displayed in both Chart 1 and Table 1 as a proxy for growth in the income sources that pay for health-insurance costs. Only a growing economy can provide the tax revenues needed to finance government insurance programs and the wages, salaries, and profits needed to finance private insurance. The message these data convey is that all these health insurance programs have grown at a faster rate than their funding sources. It is hard to see the long-term sustainability of any program, public or private, that spends faster than its income grows.

**COST GROWTH AND WHETHER THE GOVERNMENT OR MARKET SETS PRICES**

All health insurers struggle to control cost growth. Comparing the overall growth rates of the two types of public insurers shows all four programs performing fairly close to one another. Medicare did not
have to contend with escalating drug costs, however. Medicare also did not expand its coverage to the extent other insurers did. It is important to keep in mind that these systems do not operate in isolation. They are dealing with many of the same health care providers. If the administrators of one program see they are performing better or worse than other insurers they take action accordingly.

Chart 2 helps illustrate the variation different insurers have experienced over time. The twenty-year period under study has been broken into four five-year periods. In the first five-year period FEHBP had the best record. Medicare had the best record in the second and fourth periods and CalPERS in the third.

FEHBP and CalPERS tend to follow a cycle of the market, with premiums growing quickly for about three years, then growing more slowly for about three years. This pattern is typically referred to as the "underwriting cycle". Medicare tends to follow a legislative cycle, with costs growing over a period of years, until there is pressure for a legislative action to control spending. These shocks to the system take the form of sharp payment cuts and slow or negative growth for a few years until there is legislative action to restore funding, or providers adjust to the cost controls and develop new strategies to increase Medicare payments. For example, Medicare spending slowed dramatically after Congress passed the Balanced Budget Act of 1997 (BBA97), but Congress soon increased spending in the Balanced Budget Refinement Act of 1999 (BBRA) and the Beneficiary Improvement and Protection Act of 2000 (BIPA),
How prices are set and costs controlled may be a more germane comparison. In systems where the government sets prices it is clear what price will be paid, but it is unclear that it is the correct price. In markets with an over-supply of providers, the market-based approach generates lower prices as providers compete with one another. In markets with an under-supply of providers the opposite is true and prices will be higher. The market-based system may be less uniform than a system where the government sets the prices in the sense that there can be more variation in what providers receive for the same service. The market-based system will be more efficient in that providers will maximize their income by providing more efficient care, rather than gaming a government payment formula.

CONCLUSION

Medicare is no better at cost containment than other government insurance programs; FEHBP, CalPERS, and Medicaid have all experienced about the same spending growth as Medicare over the last twenty years. However, Medicare has not had to cover outpatient prescription drugs, while the others have. In addition, other insurers have expanded their coverage, while Medicare has not.

The different large insurers all struggle to control cost growth. Some have the government set prices like Medicare and Medicaid, while others allow the market to set prices like FEHBP and CalPERS. These two different approaches each have their strengths and weaknesses. Having the government set prices is a difficult task. Health care is a
local, not a national, product. Getting thousands of different prices "right" in over 3,200 counties nationwide is a daunting task. While Medicare can control costs, it often requires "shocks to the system" such as the Balanced Budget Act of 1997.

Market-based approaches are better able to efficiently tailor prices to the local supply and demand for health care services; however, this does mean that prices may differ from market to market more than under a system where the government sets the prices. For example, in markets where there is an oversupply of providers, such as many larger cities, payments to providers would tend to be lower. In markets where there is an under-supply of providers, such as rural areas, payments to providers would tend to be higher.

Different policymakers and analysts will come to different judgments about the correct roles between the market and the government in setting health care prices and offering the best quality health care at the most competitive price. Looking to the future of both Medicare and health care in general, two significant factors come into play -- the looming retirement of the "Baby Boom" generation and the accelerating pace of technological innovation. Providing health coverage in the most flexible, innovative and efficient manner will be the challenge for the future.

1 Twenty years, from 1983 to 2002, is the longest time period with reliable data for all the insurers. If CalPERS is excluded, the data go back to about 1970. Given the importance of the CalPERS data it was decided to use two decades of data and leave CalPERS in the analysis. The growth rates in this analysis are done on a nominal, per capita basis. Nominal means that inflation has not been factored out. Per capita means on a per person or per subscriber basis. For Medicare, private insurance, and Medicaid this was done as annual changes in per person spending plus administrative spending. For FEHBP and CalPERS this was done as annual changes in per subscriber premiums.

Sources of data: Medicare and Medicaid data are from the Office of the Actuary, CMS/HHS. Private Insurance is from the CMS - National Health Accounts (http://cms.hhs.gov/statistics/nhe/projections-2002/t11.asp). Data on the Federal Employees Health Benefits Program was obtained by the Office of Actuaries, U.S. Office of Personnel Management and represent premium changes after the end of the open season. California Public Employees data were obtained from the California Public Employees Retirement System, CalPERS, Health Administration.
"Follow-Up Memorandum To The Distribution Of Total Expenses By Source Of Payments For Two Groups." Technical memorandum to the Joint Economic Committee, 5/22/03.

Ibid.


Cristina Boccuti and Marilyn Moon (see endnote 4) found that Medicare grew at an average annual per capita rate of 9.6 percent, while private insurance grew at 11.1 percent. This study found Medicare grew at 6.7 percent and private insurance grew at 9.1 percent. The results are consistent, but most probably different due to the time periods analyzed. Boccuti and Moon went back to 1970. This study stopped at 1983 to be able to have comparable CalPERS data.

Growth rates are the primary measure used to compare different health insurance programs due to the significant differences in the populations covered by the different programs. Medicare covers the aged and disabled and may be three or four times as expensive as an insurer who covers a mostly non-aged and non-disabled population. Medicare clearly is not three or four times less efficient than other insurers. Growth rates provide a cleaner measure of the cost efficiency of different insurers, controlling for differences in populations covered.


The effect of drugs on premium increases could not be directly measured. These estimates are derived by using National Health Accounts (CMS) data on private insurance per capita spending with and without drugs. The annual factors were then applied to the CalPERS premium growth rates. For example, in 2001 private health insurance per capita increased 9.6%, but not counting drugs the increase was 8.5%; this means that 89% (8.5/9.6 = .890) of the spending increases were due to costs other than prescription drugs. The 2001 CalPERS rate was multiplied by the same factor to remove the effect of drug coverage.

FEHBP allows easy access and withdrawal of managed care plans, but the entry of FFS and PPO plans is more limited due to the peculiarities of the original 1959 law establishing the program.

For the period 1988 to 2002 the enrollment weighted average premium growth at the beginning of the FEHBP "open season" was 9.49%. The movement of workers and retirees out of more expensive plans and into more
affordable plans resulted in the average premium growth rate dropping to 8.09%, a 15 percent drop.

14 "Follow-Up Memorandum To The Distribution Of Total Expenses By Source Of Payments For Two Groups." Technical memorandum to the Joint Economic Committee, 5/22/03.

15 CRS used data from a number of large government surveys. These surveys treat FEHBP and CalPERS as if they were private insurance, although they are public programs.
Health care has dramatically changed in the almost 40 years since Congress created the Medicare program to help senior citizens with their medical needs. The emergence of widely used prescription drugs is perhaps the most striking example of this change. Given the significant benefit and expense of prescription drugs, it's little wonder that Congress is contemplating how to include increased coverage as part of Medicare reform.

Often overlooked in this discussion is a crucial fact: many Medicare beneficiaries already have prescription drug coverage from other sources. However, it is difficult to judge how adequate these different forms of coverage may be. It is clear that care should be taken to design a new Medicare drug benefit that is both sensitive to current coverage patterns and meets the pressing needs of beneficiaries with inadequate or no coverage. This report documents the extent and source of this coverage and examines how it relates to various demographic factors.

**HOW MANY MEDICARE BENEFICIARIES ALREADY HAVE DRUG COVERAGE?**

*The latest data indicate that 78 percent of Medicare beneficiaries already have some drug coverage.* Un fortunately, reliable data on the generosity of the drug benefit packages are scarce.

Medicare beneficiaries with current drug coverage receive this coverage through various forms of additional insurance, most importantly employer provided retiree coverage, Medigap (individually purchased), Medicare+Choice (Medicare HMOs), and Medicaid. The information that is available suggests Medicaid and employer-based retiree coverage tend to be the most comprehensive, while Medicare+Choice and Medigap tend to be the least comprehensive.
As illustrated in Figure 1, almost all Medicare beneficiaries have some form of additional insurance; only seven percent of beneficiaries are limited solely to traditional fee-for-service Medicare, which does not provide coverage for prescription drugs. However, not all supplemental insurance provides drug coverage.

**DRUG COVERAGE VARIES BY TYPE OF SUPPLEMENTAL INSURANCE**

Figure 2 illustrates how the availability of drug coverage varies across different types of supplemental insurance. At least 90 percent of beneficiaries with Medicare+Choice, employer coverage, Medicaid, or other insurance reported some type of drug coverage in 2000. About half of Medigap beneficiaries reported drug coverage.
HOW DRUG COVERAGE VARIES WITH DEMOGRAPHIC FACTORS

- Income – *Poverty does not have as much impact as might be expected.* Figure 3 shows the relationship between poverty level and drug coverage. Medicare beneficiaries below the poverty line had drug coverage at essentially the same rate as all beneficiaries (77 percent vs. 78 percent). Coverage was somewhat lower for the near-poor, those earning between 100 and 175 percent of the poverty line. It appears that Medicaid and state low-income drug programs have succeeded in providing drug coverage to many of the poorest Medicare beneficiaries.
Figure 3: Drug Coverage of Medicare Beneficiaries by Income, 2000 (as a Percentage of Poverty)

77% 72% 71% 73% 78% 81%

100% 80% 60% 40% 20% 0%

Below Poverty 135% 136-150% 151-175% 176-200% above 201%

Source: Medicare Current Beneficiary Survey, 2000, ORDI, CMS

- **Age** – The very old are less likely to have coverage. Figure 4 shows the relationship between age and drug coverage. Beneficiaries under age 65 are disabled; their access to drug coverage is comparable to that of the elderly. For beneficiaries over age 65, coverage declines with advancing age, falling to 72 percent for those 85 and older.

Figure 4: Drug Coverage of Medicare Beneficiaries by Age, 2000

80% 78% 80% 78% 79% 74% 72%

100% 80% 60% 40% 20% 0%

0-44 45-64 65-69 70-74 75-79 80-84 85+

Source: Medicare Current Beneficiary Survey, 2000, ORDI, CMS
• **Urban/Rural** – Rural beneficiaries are less likely to have coverage. Slightly more than three-quarters of Medicare beneficiaries live in metropolitan areas; 81 percent of them have some form of drug coverage. Only 67 percent of rural beneficiaries have drug coverage. Research indicates that rural beneficiaries are less likely to have the type of supplemental coverage that includes drugs, i.e., employer provided or Medicare+Choice. In addition, even when rural beneficiaries have one of these forms of coverage, their policies are less likely to offer drugs.

• **Gender** – *Men and women have comparable drug coverage.* 78% of male Medicare beneficiaries have drug coverage, compared with 77% of female beneficiaries. This small difference may be explained by women’s longer lifespans and lower coverage for the oldest beneficiaries.

**CONCLUSION**

Although the traditional Medicare program does not cover outpatient prescription drugs, the majority of Medicare beneficiaries already have coverage from other sources. Available data suggest – at least on the surface – that coverage is remarkably consistent among different demographic groups. Therefore, Congress should consider the following when undertaking Medicare reforms:

• Be careful not to overly disrupt the existing market and the current means for delivering prescription drugs, and thereby threaten the drug coverage many seniors may currently enjoy.

• Be aware of the various organizations, such as states and employers that already provide drug coverage to Medicare beneficiaries. Learn from their experiences and avoid significant reductions to their ability and incentive to continue drug coverage.

• Gather better information on the value and quality of existing prescription drug coverage.

---

1 The latest data on drug coverage are from 2000; coverage percentages today may be somewhat smaller for some forms of coverage. In particular, we know that Medicare+Choice enrollment has dropped and some Medicare+Choice plans no longer offer drug coverage.
Other types of drug coverage include that provided by the Veterans Administration, the Department of Defense, and state pharmacy assistance programs, among others.

These data should be considered preliminary. ORDI is examining whether some beneficiaries may be confusing a discount card that comes with their Medigap policy as being "drug coverage."
It is an unfortunate fact of life that our roads are deteriorating while congestion worsens every year. Fixing our roads will not be easy; billions of dollars will be needed to stave off further declines, and there is little appetite in Congress to raise federal taxes on gasoline. The table below shows that current spending proposals for highways and mass transit for the next six years far outstrip the $218 billion spent on roads and mass transit over the previous six years. The overarching question is how the federal government will fund a significant increase in surface transportation expenditures without raising gasoline taxes.

<table>
<thead>
<tr>
<th>Package Size (billions $)</th>
<th>Gas Tax Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>House Infrastructure and Transportation 375</td>
<td>Yes, by indexing tax retroactively to 1993 and for subsequent years to inflation</td>
</tr>
<tr>
<td>Congressional 2004 Budget Resolution 280</td>
<td>No</td>
</tr>
<tr>
<td>Senate Environment and Public Works Administration 311</td>
<td>?</td>
</tr>
<tr>
<td>Administration 247</td>
<td>No</td>
</tr>
</tbody>
</table>

Source: Congressional Research Service, H Con Res 95

A new funding mechanism for highways

There are other ways to fund transportation spending increases that should be explored. For instance, many economists believe a new transportation authorization bill should grant the states more flexibility in raising money for funding transportation projects. To that end, Reps. Mark Kennedy (R-MN) and Adam Smith (D-WA) have proposed the Freeing Alternatives for Speedy Transportation (FAST) Act (H.R. 1767). The bill would remove the current prohibition on tolls for federal highways, as well as ensure that states wouldn’t be penalized for coming up with innovative ways to fund transportation construction. While toll lanes alone cannot make up the projected shortfall between the various spending proposals and revenues that will be generated by the gas tax, the judicious use of tolls would raise significant revenue.
Efficient tolls can reduce congestion

Ideally, the toll charge would vary based on the current congestion level on the road -- the more cars on the road, the higher the price of the toll lane. As the toll increases, drivers will change their behavior; when the toll is relatively high people will use car pools, take mass transit, or postpone unnecessary trips. In high-traffic corridors the market can pay the bulk of the cost of constructing and maintaining the road.

Since roads are not continuously congested, variable tolls reduce traffic and spread it out more evenly over the course of the day. In essence, properly managed fares can reduce the level of lane expansion necessary by maximizing the efficiency of the current infrastructure. The idea of variable pricing for toll lanes is the same principle that dictates lower ticket prices for movie matinees and discounts for “early bird” dining specials at restaurants: price differentials over the course of a day can alleviate crowds.

Regardless of the degree of success, innovative congestion pricing would not come close to alleviating the need for new roads. Most large cities desperately need new and improved highways to deal with the immense increases in traffic that have occurred in recent years.

Tollbooths are passé

When most people think of tolls they associate it with long queues of cars waiting to pay 50¢ to cross a bridge, thereby increasing congestion on roads. In reality, leaps in tolling technology have made cumbersome tollbooths unnecessary. Today, cars can use transponders to electronically pay tolls without stopping the flow of traffic. Transponders are inexpensive and the tolling authority often provides them at no cost to drivers. Drivers can either receive a monthly bill or else pre-pay (anonymously, should they wish) for a certain number of trips.

Proposals, like the FAST Act, encourage states to take advantage of this innovative technology by allowing them to toll new lanes on the federal interstate provided that they use an electronic tolling system.
Tolls are not the same as taxes

Some politicians resist any legislation that might lead to an expansion of tolled lanes on the principle that tolls merely represent a new form of taxation. However, it is important to note that tolling is *not* just another name for a tax. When used on newly built lanes financed by toll revenues, tolls serve as a voluntary access charge for drivers who choose to use a lane that is less congested. In essence, *when people use a toll lane they are buying time.*

Dedicated toll lanes function much the same as FedEx and other next-day shipping companies. Someone wishing to send a package via U.S. mail can do so at an inexpensive price, but the delivery will take longer and the ultimate delivery date will be less predictable. However, someone who absolutely needs a package delivered overnight can guarantee an on-time delivery by paying extra and using FedEx.

Those who worry that states will exploit tolls to fund revenue shortfalls by gouging citizens should be heartened to know that the FAST Act specifically addresses this temptation in its legislation. The FAST Act requires that all revenues raised from tolls be dedicated *only to the lanes where the tolls are collected.* States are also constrained from charging unreasonably high access charges by the marketplace. Because tolls are added only on new lanes, drivers will always have a choice whether or not to pay the toll. If the toll is set at a price drivers are not willing to pay, the newly added lane will be underutilized, costing the state potential revenue and drawing the ire of its citizens.

Tolling Success Stories

Various permutations of congestion pricing have been in place since Singapore’s Area Licensing Scheme was introduced in 1975. With electronic tolling, Singapore managed to reduce the number of single drivers and better utilized its road capacity by distributing trips more evenly throughout the day.

Domestically, there have been several value pricing projects established under the Value Pricing Pilot program. Perhaps the most successful pilot project is the High Occupancy Toll (HOT) lanes on Interstate 15 in San Diego. The program allowed two lanes, previously reserved for carpools with at least two passengers, to provide access to all drivers willing to pay a toll to enter the lane. The toll was set at a level so as to ensure that traffic in the lanes traveled near the speed limit.
The project was immensely successful and led to several dramatic improvements in road performance. The number of people carpooling increased and rates of carpooling violations decreased. Drivers believed that the toll lanes were safer and more reliable. Revenues generated were high enough that an express bus was added to I-15, providing another alternative for commuters. An overwhelming 94% of transit riders, 92% of carpoolers, and over 70% of all commuters felt that congestion pricing was a "fair" system given that travelers choose to pay the charge. The managed lanes on I-15 have proven so successful that the San Diego Association of Governments plans to expand its value pricing system by replacing the two HOT lanes with four new HOT lanes.

Most recently, in February 2003 London introduced a congestion-pricing scheme that charges vehicles entering the central city. Though met with intense skepticism by political opponents, the pricing experiment has proven to be even more successful than its designers had anticipated. The average driving speed in London's central city has increased 37% and the total number of cars entering Central London has decreased by 20%.

**Freedom for States**

The FAST Act and similar proposals encouraging greater utilization of toll lanes do not seek to mandate the wholesale use of tolls by states. However, states should have the option to use tolls to finance the reconstruction of new roads and should incur no penalty for doing so. In a federal system of government, states should be encouraged to pursue innovative methods for financing and providing essential services to the citizenry, and this is indeed what the FAST Act would achieve. Given the significant difference between proposed highway spending plans and projected gas tax revenues, the FAST Act is a modest measure that can help bridge the chasm.
RANKING MINORITY MEMBER'S VIEWS AND MINORITY REPORTS
I. Overview

As 2003 draws to a close, the U.S. economy is still struggling to mount a sustained recovery from the economic slump that it has been in for almost three years. In a formal sense, the 2001 recession lasted only from March 2001 to November 2001, and economic growth has been positive since then. However, economic growth after November 2001 was inadequate to prevent further job losses, which continued through July 2003. At that time, there were 2.7 million fewer nonfarm payroll jobs than there were when the recession began. Focusing just on the private sector, the loss was 3.2 million jobs.

The U.S. economy has been going through another "jobless recovery," just as it did following the 1990-91 recession. This time, however, the failure to recover the jobs lost in the recession has been much more pronounced and the jobs slump much more protracted. Job gains in the past three months have been inadequate to lower the unemployment rate significantly, and the jobs deficit created by the recession stood at 2.4 million nonfarm payroll jobs in October 2003 (or 2.9 million private sector jobs, when the change in government jobs is excluded).

Economic policy during this slump has had both positive and negative elements. The Federal Reserve earned high marks from most analysts by reacting quickly to signs of weakening economic activity in 2001 and easing monetary policy substantially. The tax rebates Democrats fought to have included in the 2001 tax cut probably contributed as well to sustaining personal consumption expenditures and preventing an even deeper recession. From a pure fiscal policy standpoint, spending on homeland security and the war on terrorism also provided positive fiscal stimulus.

However, the three large tax cuts at the heart of the Bush Administration's fiscal policy were poorly suited to generating a robust recovery. Instead of concentrating on getting money into the hands of those who were most likely to spend it immediately, the Bush tax cuts emphasized income tax rate cuts for high-income taxpayers. Those tax cuts permanently eroded the federal government's long-term fiscal health, while providing much less anti-recessionary bang-for-the-buck than Democratic alternatives would have provided. Despite their
inefficient and inequitable design, the Bush tax cuts were so large that they probably had some role in creating a spike in economic activity in the third quarter of this year. On balance, however, their adverse effect on longer-term growth and future living standards is likely to be more significant.

The economic slump has meant a decline in the economic fortunes of ordinary American families. After adjusting for inflation, median household income fell by over $1,400 from 2000 to 2002 (median income is the income of the household at the exact middle of the income distribution). The poverty rate rose in both 2002 and 2003 and now stands at 12.1 percent; 34.6 million Americans were living in poverty in 2002, an increase of 3 million from 2000. In 2002, 43.6 million Americans lacked health insurance, an increase of 3.8 million from 2000.

The JEC Democrats have analyzed several aspects of economic performance and policy in the past year, concentrating on documenting the persistence of the economic slump, the impact of the slump on average Americans, the failure of the Bush administration to address short-term problems raised by the slump, and the complete abandonment of fiscal discipline in pursuit of tax cuts whose potential benefits are both elusive and likely to be swamped by the adverse effects of large future budget deficits.

II. The Persistent Jobs Slump

Earlier this year it became apparent that the current jobs slump is different from other post-World War II business cycles. Whether one focuses on overall nonfarm payrolls or excludes government jobs and focuses on private nonfarm payrolls, the economy is not following the normal pattern of a business cycle recovery. Nor is it even following the pattern set in the “jobless recovery” following the 1990-91 recession. In the current slump, the job losses so long after the start of the recession have been much deeper than normal and are continuing rather than reversing. (See the JEC Democrats report: “The Persistence and Depth of Payroll Employment Job Losses.”)

Charts 1 and 2 present the latest data. The typical pattern in recessions since the end of World War II is that labor markets begin to stabilize about 10 months after the start of the recession; the economy begins to gain back the jobs lost in the recession after about 15 months;
and all the jobs lost in the recession are recovered within two years. The experience following the 1990-91 recession proved to be a notable exception: 31 months passed before nonfarm payroll employment reached its pre-recession level, and 33 months passed before private nonfarm payroll employment reached its pre-recession level.

Chart 1

Decline in Total Nonfarm Payrolls in the Current and Previous Cycles

Sources: JEC Democratic Staff calculations using data from the U.S. Department of Labor and the National Bureau of Economic Research.
Recent experience has been even more notable. Labor markets may finally have stabilized in the current jobs slump. But given the large total and private jobs gaps existing in October 2003, the 31st month after the start of the recession, it will be many more months before we have recovered the ground that has been lost—much less created the additional jobs needed to employ a growing labor force and restore full employment.

In October 2003, Treasury Secretary Snow indicated in a newspaper interview that he expected about 2 million payroll jobs to be created between the third quarter of this year and the third quarter of next year, or roughly 200,000 jobs per month over the next 12 months. Leaving aside the fuzzy math (200,000 jobs per month is 2.4 million jobs in a year; 2 million jobs in a year is 167,000 jobs per month), there are two remarkable aspects to the Snow prediction. First, it represents a substantial scaling back of expectations from what the Administration was predicting earlier this year. Second, it implicitly concedes that President Bush’s record on job creation is going to be the worst of any President since Herbert Hoover. (See the JEC Democrats report: “The Administration’s Latest Snow Job on the Economy.”)
In February 2003, the President’s Council of Economic Advisers issued a report predicting that the Administration’s “Jobs and Growth” initiative would contribute to a job creation pace of over 300,000 per month. That is 50 to 75 percent higher than the 170,000 to 200,000 jobs per month now appearing in Secretary Snow’s crystal ball.

Whether one looks at total nonfarm payrolls or private nonfarm payrolls, President Bush is the only President since Hoover with net job losses (Chart 3). Even with the job creation envisioned by Secretary Snow, President Bush will maintain his place in the job creation Hall of Shame at the end of his term in January 2005. Based on the latest data (which became available after the aforementioned JEC Democrats’ report was published):

- Nonfarm payroll employment would have to grow at a rate of 160,000 jobs per month over the next 15 months to recover the 2.4 million jobs lost since President Bush took office in January 2001. That may be achievable, but it will still be well short of even his father’s paltry job growth pace.

- Private nonfarm payroll employment (which excludes government job creation) would have to grow at a rate of 196,000 jobs per month over that period to erase the current private-sector jobs deficit. But that still would leave him behind his father’s lackluster pace.

As mentioned, President Bush will smash—by a wide margin—the modern (post-World War II) record currently held by his father for job creation futility after the onset of a recession. Indeed, based on data through October 2003, if Secretary Snow’s estimate of 200,000 jobs per month proves to be on target:

- The nonfarm payroll deficit of 2.4 million jobs will not be erased until October 2004—43 months after the start of the recession.

- The private nonfarm payroll deficit of 2.9 million jobs will not be erased until January 2005—46 months after the start of the recession.
The fact that labor markets have stabilized after more than two years of job losses is, of course, good news. The 126,000 jobs created in October and the nearly 300,000 jobs created since July are encouraging when judged against the dismal jobs performance we had been seeing. But that pace of job creation is at the very low end of estimates of what is needed to keep up with a growing labor force. Much more vigorous job growth will be needed to create enough jobs to bring the unemployment rate back down to a level anything like what we saw before the onset of the recession.

III. Ordinary Americans Are Losing Ground

After a period of extraordinary economic gains in the 1990s, American families have lost ground since the onset of the economic slump in early 2001. Clear documentation of that deterioration can be found in three reports from the Census Bureau on family income, poverty, and health insurance.

Declining Household Income

Real (inflation-adjusted) median household income fell 1.1 percent in 2002, to $42,409. (Median income is the income of the household at the exact middle of the distribution.) Between 2000 and
2002, real median household income declined $1,439, or 3.3 percent (Chart 4). Median income for black households declined by 6.3 percent over that period, while median income for Hispanic households fell by 4.4 percent. (See the JEC Democrats fact sheet: "Poverty and Income in 2002.")

Low-income households suffered larger relative declines from 2000 to 2002 than did higher-income households. The distribution of income in the United States is highly unequal: in 2002, the top one-fifth of households received half of all income, and the top 5 percent alone received 22 percent of all income. In contrast, the bottom 60 percent of households received just 27 percent of total income.

Increase in the Poverty Rate

The poverty rate rose to 12.1 percent in 2002, an increase of 0.8 percentage point since 2000. That increase brought the total number of Americans living in poverty to 34.6 million. The number of people in poverty has increased by 3 million since 2000 (Chart 5).
One in 6 American children lives in poverty. There were 12.1 million children in poverty in 2002, an increase of over half a million since 2000. The poverty rate for the elderly has also increased since 2000, rising to 10.4 percent in 2002.

More Americans without Health Insurance

More Americans were without health insurance in 2003. The number of uninsured rose to 43.6 million—2.4 million more than last year and 3.8 million more than in 2000 (Chart 6). The percentage of the population with coverage through employment-based plans, the largest component of the U.S. health insurance system, fell to 61.3 percent in 2002.
Rising health insurance premiums hurt families able to maintain coverage. Employer health insurance premiums rose by 13.9 percent in 2003 following a 12.9 percent increase in 2002. The average annual premium for family coverage is now over $9,000, with workers contributing an average of $2,400 to the premium.

IV. Inadequate Policy Response to the Jobs Slump and Economic Distress

The policies of the Bush administration and the Republican Congress have been inadequate to address the jobs slump and the economic distress that has accompanied it. The policy decisions that have contributed to producing very large budget deficits in the near term have doubtless provided some fiscal stimulus that has propped up the economy. However, those policies have not been focused on the immediate need to combat the persistent jobs slump. Nor have they adequately addressed the people hurt most by the recession—in particular workers who have lost their jobs and low-income households who have suffered direct income declines and a loss of services from states facing a mounting fiscal crisis with almost no relief from the federal government. Finally, as discussed in the final part of this report, Republican policies have worsened our long-run fiscal stance.
when we should be strengthening it to prepare for the imminent retirement of the baby boom generation.

*Ending the Jobs Slump and Restoring Full Employment*

Most economists recognize that the problem facing the American economy since early 2001 has been inadequate demand for the amount of goods and services that the economy is capable of producing at full employment. Growth in labor productivity (output per hour), which surged after 1995, has continued at an extraordinary pace, and the supply side of the economy appears to be in good shape. However, demand for goods and services fell off in the recession and remains well below what could be supplied at full employment.

The Bush administration’s obsession with cutting taxes led to policies that were not well designed to combat the jobs slump. The President’s “Jobs and Growth Initiative,” which evolved into the Jobs and Growth Tax Relief Reconciliation Act of 2003 (JGTRRA), provided less stimulus than a Democratic alternative that focused on creating jobs immediately without adding to the long-term budget deficit. (See the JEC Democrats report: “Policies to Restore Full Employment and Promote Long-Term Growth.”)

Democrats recognized that the immediate problem facing the economy was weak aggregate demand, which was keeping the unemployment rate too high and prolonging the jobs slump. Under those circumstances, a true stimulus plan would have been fast acting, in order to boost aggregate demand and put people back to work quickly. Such policies would have required increasing the budget deficit in the short run, but the kind of stimulus package that would have been appropriate for ending the jobs slump would not have added significantly to the budget deficit in the long run. In other words, policies to restore full employment should have had a large job-creating “bang” for the deficit “buck.”

Analyses of the job-creating stimulus from various tax cut or spending policies rank dividend or capital gains tax relief at the bottom in terms of effectiveness. For example, the private economic forecasting and consulting firm Economy.com estimates that the dividend tax relief in the President’s program would have almost no effect on GDP and jobs in the first year (9 cents of GDP per dollar of revenue loss, compared with $1.73 of GDP per dollar of extended
unemployment benefits). In its analysis of the effects of changes in tax policy, the Congressional Budget Office (CBO) found that capital gains tax cuts would mostly be saved, and hence would have only a small impact on purchases of goods and services and hence on jobs.

Most economists believe that tax cuts or spending increases that directly raise the disposable income of low- and moderate-income families are far more likely to be spent (and hence generate jobs and growth immediately) than tax cuts for higher-income taxpayers. The Republican proposals that passed were heavily tilted toward higher-income taxpayers; the Democratic alternatives were more balanced.

The analysis by the Democratic staff of the Joint Economic Committee confirms these observations. The kind of plan offered by Democrats would have provided roughly twice the number of new jobs this year as the plan proposed by Republicans (1.1 million versus 600,000 jobs by the end of 2003). A Democratic plan would not have provided stimulus in subsequent years, because, once the economy gets back to full employment, such stimulus is no longer needed. In contrast, the Republican plan continues to stimulate the economy in coming years and will most likely be offset completely by tighter monetary policy, which will require higher interest rates but will produce no additional jobs or growth.

**Increasing Child Credit Rebates for Lower-income Households**

The Jobs and Growth Tax Relief Reconciliation Act of 2003 increased the child tax credit from $600 to $1,000 per child. But, by failing to accelerate the increase in the percentage of the credit that is refundable, JGTRRA excluded 6.5 million low-income working families from receiving the higher credit amount. The House and Senate failed to agree on a separate bill that would have given the increased child credit to these lower-income families. (See JEC Democrats report: "Low-Income Working Families Deserve the Increased Child Tax Credit.")

The opposition to extending the credit to low-income working families is based in part on the claim that these families don’t deserve tax relief because they don’t pay income taxes. However, low-income families do pay significant federal taxes. Payroll taxes for Social Security and Medicare are, on average, about 12 percent of income for families with income between $10,000 and $20,000. These families
also pay federal excise taxes, which, according to the latest estimates from CBO, are approximately another 3 percent of their income. On top of the federal taxes they pay, these families also pay income, sales, and property taxes at the state and local level.

Extending Unemployment Insurance for the Long-term Unemployed

One consequence of the protracted jobs slump is that the number of workers unemployed for 27 weeks or more has grown dramatically (Chart 7). Regular state unemployment insurance (UI) benefits, which run out after 26 weeks, have been supplemented with temporary federal extended UI benefits that run for another 13 weeks. However, the Temporary Extended Unemployment Compensation (TEUC) program is scheduled to be closed to new beneficiaries at the end of 2003. If TEUC is not extended, only those who are already receiving extended benefits will remain in the program until their 13 weeks have run out; those who first exhaust their regular benefits in 2004 will not receive any extended benefits.

However, the case for extending, and even expanding TEUC is strong:

- The number of people exhausting their six months of regular state UI benefits remains more than twice as high as it was at
the start of the recession in March 2001 (Chart 8). The percentage increase in the number of exhaustions is larger than it was in the 1990-91 recession and shows no sign of abating. In past recessions, federal temporary extended benefits were not discontinued until exhaustions of regular UI benefits had fallen considerably.

Chart 8

Temporary Federal UI Benefits Scheduled to Expire Even Though State Exhaustions Remain High
Percent Change in State UI Exhaustions, 2001 and 1990-91 Recessions

- The current jobless recovery is worse than the one following the 1990-91 recession (Chart 9), yet the temporary federal extended unemployment benefits program is less generous today than it was in that earlier jobs slump (Chart 10). Furthermore, following the 1990-91 recession, at least 20 weeks of additional federal benefits were available in each state until several months after the jobs deficit was erased. Today, some are considering ending the federal program even though there has been little progress in erasing the jobs deficit.
During the current jobless recovery a much larger number and percentage of workers are exhausting their federal extended UI
benefits before finding work than did so following the 1990-91 recession. Since the current program began in March 2002, 69 percent of temporary federal UI recipients, or more than 4 million people, have exhausted those benefits before finding work. In the last recession, 51 percent of temporary federal UI recipients, or just over 3 million people, exhausted their benefits before finding work (Chart 11).

Chart 11

Temporary federal extended UI benefits are a time-honored response to the increased difficulties facing unemployed workers trying to find a job in a weak labor market (See the JEC Democrats report: "The Social Benefits of Unemployment Insurance Far Outweigh the Costs: An Overview of the Economic Literature.") They are also an effective automatic fiscal stabilizer that cushions income losses and supports spending by unemployed workers. Rather than embracing this approach, however, the Bush administration’s first response was to argue that UI discourages workers from looking for a job. They proposed instead Personal Reemployment Accounts (PRAs), which, whatever their merits might be in a healthy labor market, did not address the special difficulties unemployed workers face in a weak labor market. (See the JEC Democrats report: "Unemployment
Benefits and Job Search: The Administration’s Weak and Misleading Case for Personal Reemployment Accounts.

Lawmakers who resist continuing TEUC sometimes argue that the current unemployment rate of 6 percent is not particularly high. While a 6 percent unemployment rate may not have been associated with a particularly harsh labor market in the 1970s and 1980s, today it is. For example, the unemployment rate rose to a peak that was 2.2 percentage points higher than it was at the start of the recession—roughly comparable to the increase of 2.3 percentage points in the 1990-91 recession. In addition, more workers have dropped out of the labor force than in the last recession and are not registered in the official unemployment rate. If they were actively looking for work, that would raise the unemployment rate. (See the JEC Democrats report, “Debunking the Argument That Unemployment Is Not High Enough to Justify Extending UI Benefits.”)

Providing Adequate Relief to Help States with Their Fiscal Crisis

The recent economic slump has hit state budgets from both sides. Income and sales tax revenues have fallen with reduced economic activity, while the demands on social services have grown as joblessness has increased and family incomes have declined.

Wanting to avoid cuts in entitlement programs and school aid, the states used a variety of options to close their 2002 budget gaps, including draining rainy day funds (26 states), raising certain taxes and fees (23 states), laying off employees, and borrowing against expected tobacco settlement payments. But revenues continued to decline in 2003, and some expenditures grew faster than expected. As a result, states face another $49 billion in deficits that need to be closed. Prospects for 2004 are worse: the National Conference of State Legislators estimates that 41 states will face a cumulative budget shortfall of $78 billion.

In response, states are now resorting to more drastic fiscal measures, including cuts in Medicaid, education, childcare, and public safety. They also are passing along more costs to consumers. In the past 3 years, tuition and fees at 4-year public universities have increased by 28 percent, even after controlling for inflation. Real
(inflation-adjusted) tuition and fees have increased by 13 percent in just the last year.

While the federal government can engage in deficit spending to meet immediate needs, the states are currently much more constrained. Significant federal relief to the states would have helped mitigate the negative impacts of the recession on poor and working families, and perhaps eased the burden of college expenses for middle-income families. They would also have contributed to job creation, because states could reverse their cuts and inject additional spending into the economy quickly.

V. Irresponsible Fiscal Policies That Hurt Long-Term Economic Growth

The federal government recorded a record $374 billion budget deficit in fiscal year 2003. Without any changes in current policies, the deficit is projected to grow to $480 billion next year (Chart 12). The budgetary situation has now deteriorated for three straight years since the government achieved a surplus of $236 billion in fiscal year 2000. When the Bush administration took office at the beginning of 2001, CBO projected a budget surplus of $359 billion for 2003. In less than three years we have witnessed a turnaround of over $700 billion between the expected and actual budget outcome for this year.
The on-budget deficit—which excludes the transactions of the Social Security trust funds and the Postal Service—grew to $535 billion last year and is projected to reach $664 billion in fiscal year 2004. At 5.7 percent of GDP, the on-budget deficit for next year will be the second highest as a percentage of the economy since World War II, exceeded only by the 1983 deficit, which was equal to 6.0 percent of GDP.

The expectations for the next ten years are even more disturbing. The CBO projects a 10-year total budget deficit of $1.4 trillion. Those numbers are kept artificially low by using the full amount of Social Security surpluses to partially offset the huge on-budget deficits. Excluding surpluses in the Social Security trust funds; the 10-year on-budget deficit is projected to be over $3.8 trillion.

Worse still, the CBO official baseline budget understates the true deficit because, by law, it can only count outlays and revenues that are actually specified in current law. The baseline assumes that expiring tax provisions will indeed expire, even though they are routinely renewed: The CBO baseline also assumes that the growth of discretionary spending will fall short of economic growth, and it leaves out the cost of Medicare reform as passed by both Houses of Congress and included in the budget resolution.
Adding the cost of extending expiring tax provisions, Medicare reform, and a more realistic path for discretionary spending raises the 10-year total deficit to $5.4 trillion. Under this more realistic path, annual deficits reach as high as $700 billion in some years (Chart 13). Set aside Social Security surpluses and the deficit becomes an astounding $7.8 trillion over 10 years.

Chart 13

The CBO official baseline also assumes no fix to the Alternative Minimum Tax (AMT), so that an increasingly large share of American households—at lower and lower income thresholds—will become subject to the AMT over time. The CBO estimates that if the higher exemption amount for the AMT enacted in JGTRRA is extended and indexed for inflation (along with the AMT tax rate brackets), the 10-year total deficit projection would increase by nearly $700 billion more.

When President Bush took office in 2001, the CBO projected a $5.6 trillion 10-year surplus. Current projections now show a 10-year deficit that likely will reach $5 to $6 trillion. In just three years we have seen the federal budget outlook deteriorate by well over $10 trillion under the stewardship of this administration.
Deficits increase federal borrowing. Currently, we are paying for well over one-fifth of the non-Social Security expenditures of the federal government with borrowed money.

The immediate effect of an extra dollar of federal borrowing is a dollar reduction in the amount of national saving available to finance productive private investment. Private borrowers will then compete against each other for the available funds, raising interest rates. Three things can happen: some borrowers might decide that their investment is not worth undertaking at the higher borrowing cost; some additional private domestic saving might be forthcoming at the higher interest rate; and some foreigners may decide to lend more in the United States because of the higher interest rates.

With interest rates currently very low, some would argue that slightly higher rates will not deter investment, and besides, it is hard to establish a direct link between budget deficits and interest rates. While interest rates may be temporarily low, when the economy finally turns the corner and begins a sustained recovery, investment will pick up. That pickup in private demand for investment funds will put upward pressure on interest rates. The expectation of large government deficits and the need for additional government borrowing will cause rates to rise more than they would otherwise. A recent study by the Federal Reserve Board of Governors, for example, suggests that each percentage point increase in the long-term budget deficit as a share of GDP pushes up long-term interest rates by 25 to 50 basis points (a basis point is one one-hundredth of a percentage point).

Regardless of their effect on interest rates, budget deficits will reduce national saving unless private saving increases by enough to make up the difference. The evidence does not support the presumption that there will be a large increase in private saving. For example, we can look at the lessons from the Reagan era and the fiscal discipline of the 1990s. The Reagan tax cuts pulled down both public saving and national saving. The tax cuts failed to generate the large supply-side responses that had been claimed by the proponents of the cuts, and the result was, at the time, record budget deficits. In 1993, President Clinton raised taxes to address the huge deficit problem, but the economic stagnation predicted by Republicans never happened.
Instead, the boost to public saving raised national saving and overall economic growth as well.

What if foreign savers take up the slack and provide the funds for U.S. investment? Eventually, U.S. citizens will pay the price for that borrowing. Domestic investment financed by foreign saving makes a much smaller contribution to future domestic national income (and the U.S. standard of living) than domestic investment financed by U.S. domestic saving. Most of the earnings of that investment must be paid to the foreign lenders. Thus, irrespective of the impact on interest rates, increases in federal borrowing lead to less domestically financed investment and slower growth in national income.

Recent analyses of this year’s “Jobs and Growth” package confirm that the adverse effects of increasing federal budget deficits outweigh any positive economic gains from the tax cuts themselves. By themselves, some tax cuts, such as reductions in marginal tax rates or reductions in taxes on investment, might contribute to long-term growth by encouraging labor force participation and capital formation. But because these tax cuts reduce public saving, while any increase in private saving is small and uncertain, the tax cuts harm national saving and economic growth.

The President’s Council of Economic Advisers estimated that the private saving response to the tax cuts would be negligible, but that each dollar of debt will stimulate 40 cents of foreign capital inflows (purchases of U.S. assets that provide the funds to finance new investment).

An analysis by the JEC Democrats using macroeconomic models that account for the private saving response as well as the higher deficits found that because of its long-run budgetary costs, the President’s original plan had adverse long-run supply-side effects that lowered national income in 2013 by 0.4 to 0.6 percent. (See the JEC Democrats report: “Republican Tax-Cutting Strategy Fails the Economy.”)

In their most recent analysis of the President’s budget, CBO found adverse macroeconomic effects if tax cuts are not paid for—that a proper “dynamic scoring” would raise, not lower, the costs of the Administration’s tax proposals. (See JEC Democrats report: “A Reality Check on ‘Faith-Based’ Revenue Estimation.”) The Joint
Committee on Taxation released estimates of the macroeconomic effects of the House Republican version of the Administration’s “Jobs and Growth” plan, and found only negative effects on real economic activity and employment over the longer run (2009-13).

A Fundamental Shift in Tax Policy

In just a few years we have seen a fundamental structural shift in federal fiscal policy. Federal income tax revenues are no longer sufficient to meet the basic obligations of the federal government. From 1962 through 2003 non-Social Security federal outlays averaged an amount equal to 16.8 percent of the nation’s gross domestic product (GDP). By the year 2000, federal spending on all programs except Social Security had fallen to just 15 percent of GDP. Current federal revenues do not come close to meeting even those reduced spending obligations. In fiscal year 2003, federal revenues exclusive of Social Security payroll taxes dropped to 11.7 percent of GDP. That is the lowest revenues have been since 1942—before Medicare, Medicaid, aid to education, and a host of other popular programs. Some of the decline in federal revenues is due to the still sluggish economy, but, in the immediate future, a large portion of the revenue shortfall is attributable to the three rounds of tax cuts since 2000.

Corporate income taxes, in particular, have fallen as a share of the economy and as a share of total federal revenues (Chart 14). In 1962, corporate taxes made up over 20 percent of total federal revenues and equaled 3.6 percent of GDP. The CBO estimates that in 2003, corporate taxes will account for only 7.4 percent of total federal tax revenues, and equal only 1.2 percent of GDP. Since World War II, the only year in which corporate taxes were lower than they are today was 1983.
Taxes on U.S. corporations are also low compared with other major industrialized countries. In 2002, corporate taxes (at all levels of government) as a share of GDP were only 2.5 percent in the United States, compared with an average of 3.6 percent across all Organization for Economic Cooperation and Development countries. This international corporate tax gap has widened over the past few decades, especially most recently as a result of the federal corporate tax cuts passed since 2000.

In addition to reducing revenues, the recent tax cuts have also shifted the distribution of taxes. The combination of income tax cuts that disproportionately benefit higher-income families, elimination of the estate tax, and unchanged payroll taxes shifts more of the tax burden to lower- and middle-income families. More than one-third of the total income tax cuts that have already taken place since 2001 have gone to the 5 percent of families with the highest incomes. Approximately 12 percent of the tax cuts have gone to families with annual incomes of $1 million or more. Overall, the average tax cut for millionaires in 2003 was about 80 times the average cut for middle-income families. Lower- and middle-income families are not only being asked to shoulder a larger share of federal taxes, but they are also
the same families that will be hurt the most as the lack of federal revenues squeezes out necessary and popular federal programs.

Chart 15

Bush Tax Cuts Are 80 Times Larger for Millionaires Than for Middle Income Households

<table>
<thead>
<tr>
<th>Income group (2002 dollars)</th>
<th>Dollars</th>
</tr>
</thead>
<tbody>
<tr>
<td>under $20,000</td>
<td>131</td>
</tr>
<tr>
<td>$20,000-$50,000</td>
<td>790</td>
</tr>
<tr>
<td>$50,000-$75,000</td>
<td>1,403</td>
</tr>
<tr>
<td>$75,000-$100,000</td>
<td>2,543</td>
</tr>
<tr>
<td>$100,000-$200,000</td>
<td>3,710</td>
</tr>
<tr>
<td>$200,000-$1 million</td>
<td>9,342</td>
</tr>
<tr>
<td>over $1 million</td>
<td>112,925</td>
</tr>
</tbody>
</table>

Source: JEC Democratic Staff, based on Urban-Brookings Tax Policy Center, Table 5.17.

The new tax laws have also made the tax system much more complex, increasing the costs of tax planning and compliance. Numerous provisions of the new laws either phase-in or abruptly phase-out, and all provisions sunset by the end of the decade. The new tax laws failed to implement a permanent solution to the AMT problem. As a result, an increasing number of taxpayers will be forced to calculate their taxes twice, once using standard rules and a second time using complex AMT rules. The new tax laws also increased special tax subsidies for education and retirement saving, following a continuing trend in recent years of adding additional complexity to the tax code to promote social and economic objectives.

Tax cuts now mean even bigger tax increases later. President Bush’s tax cut agenda gambles away the income security of future generations. Our country’s impending demographic challenge and corresponding fiscal pressures are a certainty. We already faced tough decisions about how the government will meet the cost of the retirement of the baby boomers. Either taxes will rise in the future, spending will fall, or some combination of both. The President’s tax cut agenda is not responsible for that situation, but it surely and
dramatically has made a tough problem even tougher. It makes the fiscal hole even deeper, and it unjustly pushes off onto our children and grandchildren most of the financial responsibility for the tax cuts and government programs we now enjoy.

To put the long-term revenue losses from the Bush administration’s agenda in perspective, the estimated long-run cost of the enacted and proposed tax cuts is between 2.3 and 2.7 percent of GDP, or between $12.1 trillion and $14.2 trillion in present value over 75 years. This amounts to more than three times the projected 75-year actuarial shortfall in Social Security.

While avoiding these huge tax cuts would not eliminate the challenges our nation faces with the impending retirement of the baby boomers, it would provide us with the resources needed to effectively strengthen the Social Security and Medicare programs. By embracing the Administration’s tax-cutting agenda, current policy makers choose to leave future generations to clean up the fiscal mess.

VI. Conclusion

The U.S. economy continues to be in a significant jobs slump. It will be many more months before the jobs lost in the recession that began in March 2001 are recovered and we experience net new job growth. But even that is only half the job. The working-age population has continued to grow since the start of the recession and getting back to full employment will require the creation of millions of net new jobs. That job has not yet begun.

Reports by the JEC Democrats in 2003 have documented the seriousness of the jobs slump and the inadequacy of the policy responses from the Bush administration and Congressional Republicans. There are encouraging signs that the underlying strength and resilience of the American economy is beginning to assert itself. But even if we finally begin to see a real job-generating business cycle recovery, the country has in the meantime been saddled with a set of policies that have undermined long-run fiscal discipline and recklessly created a future of budget deficits that will hold down growth in our standard of living for years to come.
The latest data from the Bureau of Labor Statistics (BLS) show that the labor market slump that began over two years ago worsened in May. The persistence of private sector job losses has been so serious that unless the economy creates an average of 433,000 jobs per month from June through December, this will be the most protracted jobs recession since the 1930s.

**Shrinking payroll employment.** It is unprecedented since the 1930s for payroll employment still to be shrinking so long after the beginning of a recession, yet the number of nonfarm payroll jobs fell by 17,000 in May, and has fallen by 289,000 since January (Chart 1). *Private* nonfarm employment has fallen by 233,000 since January (Chart 2).

![Chart 1](chart1.png)

**An unprecedented jobs slump.** No recession in the post-World War II era has shown such persistent private sector job losses. Typically, such job losses begin to be reversed after about 15 months and the jobs lost in a recession are fully recovered in about two years. This time, however, it has been 26 months since the beginning of the recession in March 2001, and private payroll employment is 2.7 percent (3 million jobs) lower than it was then. Because there has been net job creation in the government sector, total nonfarm employment is down by less (1.9 percent, or 2.5 million jobs). In both cases, however, the persistence...
of job losses is noteworthy compared with past recessions, as is the size of the job-loss gap so long after the recession began.

<table>
<thead>
<tr>
<th>Chart 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decline in Private Nonfarm Payrolls in the Current and Previous Business Cycles</td>
</tr>
<tr>
<td>Months after cyclical peak</td>
</tr>
<tr>
<td>0</td>
</tr>
<tr>
<td>Average of postwar recessions prior to 1990</td>
</tr>
<tr>
<td>1990 recession</td>
</tr>
<tr>
<td>Current slowdown</td>
</tr>
</tbody>
</table>

The prospect of the longest jobs slump since the 1930s. The previous recession most similar to this one was 1990-91, which was followed by a long “jobless recovery.” It was 33 months after the start of the 1990-91 recession before the job losses in that recession were completely erased, making it the most persistent post-recession job slump in the last half century. However, private payrolls in that earlier business cycle had already begun expanding before the 26-month mark. This time, in contrast, private payrolls are still stagnant. To avoid setting a new record for private-sector job-creation futility, the economy would have to turn on a dime and create an average of 433,000 new private sector jobs per month through the end of the year.

The story for overall nonfarm payroll employment is similar. In the previous recession, it took 31 months for nonfarm payroll employment to get back to its level in July 1990 when the recession began, making that the longest job slump since the 1930s. With a gap of 2.5 million jobs today, we would need an additional 492,000 jobs per month from June through October to avoid setting the record for job-creation futility based on overall nonfarm employment.
Treasury Secretary John Snow recently predicted that about 2 million payroll jobs would be created between the third quarter of this year and the third quarter of next year, or roughly 200,000 jobs per month over the next 12 months. Leaving aside the fuzzy math (200,000 jobs per month is 2.4 million jobs in a year; 2 million jobs in a year is 167,000 jobs per month), there are two remarkable aspects to this prediction. First, it represents a substantial scaling back of expectations from what the Administration was predicting earlier this year. Second, it implicitly concedes that President Bush’s record on job creation is going to be the worst of any President since Herbert Hoover:

Lowering the Bar

In February of this year, when the Bush Administration was arguing that another round of tax cuts was the best way to stimulate the economy, the President’s Council of Economic Advisers (CEA) issued a report predicting that in the 18 months between the second quarter of 2003 and the fourth quarter of 2004, the President’s “Jobs and Growth” initiative would add 1.4 million payroll jobs to the 4.1 million jobs that it projected would be created even if no new tax cuts were passed. That’s a job creation pace of over 300,000 per month—and 50 to 75 percent higher than the 170,000 to 200,000 jobs per month now appearing in Secretary Snow’s crystal ball.

Just focusing on the period of Secretary Snow’s prediction, a rough estimate from the chart accompanying the CEA report indicates that in February the Administration was expecting about 3½ million jobs to be added to payrolls between the third quarter of this year and the third quarter of next year. That’s 75 percent more jobs than Secretary Snow is currently predicting.

The Democratic staff of the Joint Economic Committee has estimated that, because the labor force is growing, somewhere between 135,000 and 170,000 jobs per month need to be added to payrolls just to keep the unemployment rate from rising (see the Box for an explanation of different employment concepts). At the lower end of this range, the addition of 2 million jobs would mean a reduction in the unemployment rate of about 0.2 percentage points over the next 12
months (from 6.1 to 5.9 percent). At the upper end of the range, the unemployment rate would be essentially unchanged.

The Job Creation Hall of Shame

Secretary Snow's new employment projections may represent a substantial scaling back of the Administration's earlier projections of job growth, but even those modest gains would be a welcome turnaround from the dismal job record the Bush Administration has achieved so far. They would not be large enough, however, to keep the Bush presidency from having the worst job creation record since Hoover and for the current jobs slump to be the most protracted jobless recovery since the 1930s.

Worst job creation in a Presidency. Whether one looks at total nonfarm payrolls (Chart 1) or private nonfarm payrolls (Chart 2), President Bush currently has the worst job creation record of any President since Hoover, and his presidency is the only one since Hoover with net job losses.

Herbert Hoover has by far the worst job creation record of any President in the last 70 years. All other Presidents have left office with payroll employment higher than when they took office. Between Hoover and Bush, the presidency with the worst job creation performance was the President's father's, with total payroll job growth of only 0.6 percent per year and private job growth of only 0.4 percent per year.

Thus far in his term, President Bush has seen total payroll employment fall at an average annual rate of 0.7 percent and private payroll employment fall at an average annual rate of 1.1 percent. If job creation is sustained at Secretary Snow's predicted pace of 170,000-200,000 jobs per month over the 16 months from October 2003 to January 2005, the President may end the term with positive job creation, but just barely. Based on the following statistics, however, President Bush will most likely maintain his place in the job creation Hall of Shame with the worst record of job creation of any President since Hoover:

- Nonfarm payroll employment would have to grow at a rate of 161,000 jobs per month over the next 16 months to recover the
2.6 million jobs lost since President Bush took office in January 2001.

- Private nonfarm payroll employment would have to grow at a rate of 199,000 jobs per month over that period to erase the current private-sector jobs deficit.
- Nonfarm payroll employment would have to grow at a rate of 361,000 jobs per month over the next 16 months for the growth rate of payroll employment under this President Bush to exceed the paltry rate of 0.6 percent per year achieved under his father.
- Private nonfarm payroll employment would have to grow at a rate of 313,000 jobs per month over that period for the growth rate of private sector jobs under this President Bush to exceed the paltry rate of 0.4 percent per year achieved under his father.

Most persistent jobs slump since the 1930s. President Bush will not only break the modern (post World War II) record for job creation futility currently held by his father; he will smash it by a wide margin.

In September 2003, the number of nonfarm payroll jobs was 2.7 million lower than it was when the recession began in March 2001, and the number of private nonfarm payroll jobs was 3.2 million lower. Typically, the jobs lost in a recession are recovered in about two years, and job growth is strong by that point (Charts 3 and 4). Since the 1930s, the longest it has taken for nonfarm payrolls to recover to their level at the start of the recession was 31 months in the 1990-91 recession and subsequent jobless recovery of the first Bush Administration. The longest it has taken for private payrolls to recover was 33 months in that same 1990-91 recession and subsequent jobless recovery.

This month is the 31st month since the start of the recession in March 2001. Clearly, job growth in October (which will be reported on November 7) will not erase the current nonfarm payroll employment deficit of 2.7 million jobs. Indeed, if Secretary Snow's estimate of 200,000 jobs per month proves to be on target, nonfarm payrolls will remain below their March 2001 level until November 2004—44 months after the start of the recession. At 3.2 million jobs, the private nonfarm employment deficit is even larger than the overall jobs deficit. At a pace of 200,000 private sector jobs per month, it would take from
October 2003 until January 2005—46 months after the start of the recession—to erase that deficit.

Conclusion

Secretary Snow may have thought that he was being upbeat about the economy when he stated that he expected about 2 million jobs to be created over the next year. In fact, he was substantially scaling back the Administration’s predictions. Moreover, he was implicitly acknowledging that the Bush Administration’s poor record on job creation was likely to be historic.

Measuring Employment, Unemployment, and Jobs

The country’s main statistics on employment, unemployment, and jobs come from two surveys, and those statistics are released at the beginning of each month by the Bureau of Labor Statistics (BLS). The household survey is a monthly survey of about 60,000 households and is the source of data for calculating the unemployment rate. The establishment survey is a monthly survey of about 400,000 worksites and is the source of data for calculating payroll employment.

Employment and unemployment in the household survey. The household survey asks people whether they are working or looking for a job. The labor force is defined as the total number of people who are working or looking for a job; household employment is the total number of people who have jobs; the unemployment rate is the number of people who do not have jobs but are actively looking for work expressed as a percentage of the labor force.

Employment in the establishment survey. The establishment survey asks employers how many workers they have on their payrolls and is a measure of the number of jobs in the economy. Nonfarm employment is the most comprehensive measure of jobs derived from the establishment survey; private nonfarm employment is nonfarm employment excluding jobs in the government sector.

Which is the best measure of job creation? The household survey and the establishment survey measure different things and cover somewhat different populations. For example, the household survey includes farmers and the self-employed, while the establishment survey does not. Moreover, the employment measures from the two surveys have shown somewhat different trends since the start of the recession in early 2001. These differences have created confusion about which is the best measure of job creation.

Some analysts have tried to argue that the payroll data are not capturing new job creation accurately, but the views of the Commissioner of the BLS and the Congressional Budget Office are more typical of informed opinion. For a variety of reasons, they argue that the payroll data give a more accurate picture of trends in job creation than do the household data. Nonfarm payroll employment is the more comprehensive measure, but policy is usually aimed at stimulating job creation by private businesses. Thus, private nonfarm payroll employment is probably the better indicator for judging the effectiveness of policy.
Chart 1
Only Administration in 70 Years with Decline in Total Jobs
Change in Total Nonfarm Employment

<table>
<thead>
<tr>
<th>Administration</th>
<th>Change in Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoover</td>
<td>-4.2</td>
</tr>
<tr>
<td>Roosevelt</td>
<td>2.5</td>
</tr>
<tr>
<td>Truman</td>
<td>0.9</td>
</tr>
<tr>
<td>Eisenhower</td>
<td>2.3</td>
</tr>
<tr>
<td>Kennedy</td>
<td>3.8</td>
</tr>
<tr>
<td>Johnson</td>
<td>2.2</td>
</tr>
<tr>
<td>Nixon</td>
<td>1.1</td>
</tr>
<tr>
<td>Ford</td>
<td>2.1</td>
</tr>
<tr>
<td>Carter</td>
<td>0.6</td>
</tr>
<tr>
<td>Reagan</td>
<td>2.4</td>
</tr>
<tr>
<td>G.H.W. Bush</td>
<td>-0.7</td>
</tr>
<tr>
<td>Clinton</td>
<td></td>
</tr>
<tr>
<td>G.W. Bush</td>
<td></td>
</tr>
</tbody>
</table>


Chart 2
Only Administration in 70 Years with Decline in Private Sector Jobs
Change in Private Nonfarm Employment.

<table>
<thead>
<tr>
<th>Administration</th>
<th>Change in Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoover</td>
<td>-7.2</td>
</tr>
<tr>
<td>Roosevelt</td>
<td>4.8</td>
</tr>
<tr>
<td>Truman</td>
<td>2.7</td>
</tr>
<tr>
<td>Eisenhower</td>
<td>0.5</td>
</tr>
<tr>
<td>Kennedy</td>
<td>2.0</td>
</tr>
<tr>
<td>Johnson</td>
<td>3.6</td>
</tr>
<tr>
<td>Nixon</td>
<td>2.1</td>
</tr>
<tr>
<td>Ford</td>
<td>0.9</td>
</tr>
<tr>
<td>Carter</td>
<td>3.3</td>
</tr>
<tr>
<td>Reagan</td>
<td>2.3</td>
</tr>
<tr>
<td>G.H.W. Bush</td>
<td>0.4</td>
</tr>
<tr>
<td>Clinton</td>
<td></td>
</tr>
<tr>
<td>G.W. Bush</td>
<td></td>
</tr>
</tbody>
</table>

Decline in Total Nonfarm Payrolls in the Current and Previous Cycles

Average of postwar recessions prior to 1990
1990 recession
Current slowdown

Sources: JEC Democratic Staff calculations using data from the U.S. Department of Labor and the National Bureau of Economic Research.

Decline in Private Nonfarm Payrolls in the Current and Previous Cycles

Average of postwar recessions prior to 1990
1990 recession
Current slowdown

Sources: JEC Democratic Staff calculations using data from the U.S. Department of Labor and the National Bureau of Economic Research.
POVERTY AND INCOME IN 2002
FACT SHEET
September 2003

Income

- Median household (inflation-adjusted) income declined 1.1 percent in 2002.

- Median income declined $1,439 between 2000 and 2002, from $43,848 in 2000 to $42,409 in 2002. This is an overall decline of 3.3 percent.

- Low-income households suffered larger income declines between 2000 and 2002 than high-income households. Average income fell 5.8 percent for those households in the lowest fifth of the income distribution, 4.1 percent for those households in the second fifth, 2.9 percent for those households in the middle fifth, 1.8 percent for those households in the fourth fifth, and 3.2 percent for those households in the highest fifth.

- Median income in 2002 was $29,026 for blacks, $33,103 for those of Hispanic origin and $46,900 for non-Hispanic whites.

- Between 2000 and 2002, median income declined 6.3 percent for blacks, 4.4 percent for those of Hispanic origin and 1.6 for non-Hispanic whites.

- Median income declined significantly in 10 states as well as the District of Columbia, based on comparisons of 2-year average medians (2000-2001 and 2001-2002). In percentage-terms, the 5 states with the largest declines were Mississippi, Hawaii, Illinois, Michigan, and Missouri. Only one state, Oklahoma, state posted a significant increase in median income.

- Income declines were widespread, but huge income disparity remains. The top one-fifth of households now
receives half of all income, and the top 5 percent alone receives 22 percent. In contrast, the bottom 60 percent receives just 27 percent of total income.

Poverty

- **The poverty rate rose from 11.7 percent in 2001 to 12.1 percent in 2002.** Since 2000, the poverty rate has increased by 0.8 percentage points. There were 34.6 million people in poverty in 2002, an increase of about 3 million during the first two years of the Bush Administration. The Census defines the 2002 poverty line for a family of four (two children and two adults) as $18,244.

- **One in 6 American children lives in poverty.** The poverty rate for children under 18 years old was 16.7 percent in 2002, up 0.5 percentage points since 2000. There were more than 12.1 million children in poverty in 2002, an increase of over half a million during the Bush Administration.

- **Between 2000 and 2002, the poverty rate for the elderly increased from 9.9 percent to 10.4 percent.** Over 250,000 thousand more elderly were poor in 2002 than 2000.

- **The poverty rate for 18 to 64 year olds increased a full percentage point from 9.6 percent in 2000 to 10.6 percent in 2002.**

- **The poverty rate for African Americans was 24.1 percent in 2002 and 21.8 percent for Hispanic Americans,** very high poverty rates compared to the population as a whole.

- **Nine states experienced a statistically significant increase in the 2-year average poverty rates (2000-2001 compared to 2001-2002):** Arkansas, Florida, Hawaii, Illinois, Maine, Michigan, Mississippi, South Carolina and Utah. **No states experienced a statistically significant decline in poverty.**
Poverty Gap

- Poverty depth increased more than the number of people in poverty between 2000 and 2002. Between 2000 and 2002, the number of individuals in poverty increased by 7.3 percent, but the poverty gap – the aggregate dollar amount by which poor individuals fall below poverty – increased by 13.1 percent in real terms.

- This increase in the poverty gap is greater than during a comparable period surrounding the last recession. Between 1989 and 1991, the years surrounding the beginning of the 1990 recession, the inflation-adjusted poverty gap increased by 11.1 percent. The real 13.1 percent increase in the poverty gap between 2000 and 2002 (the years surrounding the 2001 recession) is larger.

- Poverty is deeper after this recession. The average amount each poor person is below poverty increased in real terms from $2,151 in 1991 (the year after the 1990 recession began) to $2,814 in 2002 – one year after the 2001 recession.

Poverty Is More Severe Because Government Programs Are Less Effective

- The official number of children living in poverty has increased by 4.7 percent over the last two years, but the number of children receiving Temporary Assistance for Needy Families (TANF) has declined by 11.0 percent during the same time period, according the Department of Health and Human Services.

- Means-tested programs are weaker. In 1991, the year after the beginning of the last recession, 7.0 million individuals were removed from poverty by means-tested government programs (e.g. TANF/AFDC, food stamps, housing, SSI, school lunch). In 2002, only 5.5 million individuals were removed from poverty, some 1.5 million less individuals removed from poverty due to these government programs.
1 In this section of the Fact Sheet a more comprehensive measure of poverty is used. This measure includes all cash income, social insurance, and means-tested cash including the Earned Income Tax Credit (EITC) and non-cash benefits in the definition of income. Federal income taxes and employee payroll taxes are subtracted from income.
POLICIES TO RESTORE FULL EMPLOYMENT AND PROMOTE LONG-TERM GROWTH

COMPARING THE PRESIDENT’S JOBS AND GROWTH INITIATIVE WITH THE DEMOCRATIC ALTERNATIVE

March 2003

Introduction

Two years after falling into a recession, the American economy is still in a slump. Too many people are unemployed, too much productive capacity is idle, and economic growth is too tepid to restore full employment and high capacity utilization anytime soon. In February, for example, the unemployment rate was 5.8 percent and more than 300,000 payroll jobs were lost. Under these circumstances, the most immediate goal of economic policy should be to get people back to work and restore full employment as quickly as possible. Ideally, that goal should be achieved without damaging the longer-term budget and economic outlook.

Unfortunately, the main response of the Bush administration to the current economic situation is a “Jobs and Growth Initiative” that offers little stimulus in the short run, while incurring large ongoing budget costs that are likely to weaken growth in the long run. Congressional Democrats, in contrast, have offered a stimulus plan that concentrates on the immediate task of putting people back to work and restoring full employment. The Democratic plan has the added advantage of avoiding significant budget costs beyond the first year, so that it does not drain national saving and weaken economic growth in the future.

This paper compares the Bush “Jobs and Growth Initiative” with a generic Democratic alternative that is very much in the spirit of the specific plans offered by Minority Leader Daschle in the Senate and Minority Leader Pelosi in the House. That comparison is done using standard macroeconometric and growth models and is similar in concept and approach to other studies of the macroeconomic effects of various stimulus proposals, including an analysis of the President’s plan by his own Council of Economic Advisers. The paper reaches the following three key conclusions:
The Democratic plan provides more stimulus when it is needed most. In the first year, the Democratic alternative provides up to twice the additional GDP growth and job creation as the President’s plan, and thus restores full employment more quickly.

Interest rates are lower under the Democratic stimulus plan. Once the economy is back to full employment, the President’s plan continues to provide stimulus, which forces the Federal Reserve to raise interest rates to keep the economy from overheating. By concentrating its stimulus in the first year and avoiding unnecessary stimulus beyond that, the Democratic alternative allows the Fed to pursue a more accommodative monetary policy, with lower interest rates.

National income is higher in the future under the Democratic alternative. The substantial long-term budget costs of the President’s plan (nearly $1 trillion over 10 years, once interest costs are taken into account) add to the national debt and drain national saving. Less national saving translates into less investment, less growth, and ultimately less future income. The Democratic alternative has a 10-year cost closer to $100 billion, and therefore does not entail those long-term budget and economic costs.

In short, the Democratic alternative not only delivers substantially more stimulus “bang” for the budgetary “buck” than the President’s plan, it also boosts job creation and incomes more in the short run without sacrificing income growth in the long run.

The Stimulus Challenge: Getting Back to Potential

In contrast to current conditions, which are weak and uncertain, the underlying long-term strength of the economy is more encouraging—as long as reckless policies are not adopted. No one can know for certain whether the strong productivity revival of the late 1990s is sustainable, but the trends thus far have been positive. With the labor force growing at about 1 percent per year and with productivity (output per hour) growing at about 2 percent per year, the long-run sustainable rate of growth of real (inflation-adjusted) output is a little over 3 percent per year. That is the rate of growth of what economists call “potential output,” the output that can be produced when the labor force is fully employed and factory utilization is at its highest
sustainable rate. In the current slump, the economy is operating below its potential, with excess unemployment and idle capacity.

Economic growth can be faster than 3 percent in the short run; as unemployed workers and idle capacity are put back to work. In fact, economic growth has to be faster than 3 percent to restore full employment and get the economy back to potential. But once full employment is restored, growth that is too much above 3 percent is likely to be inflationary and prompt a tightening of monetary policy.

Figure 1 is a stylized illustration of the challenge facing policymakers today. The economy went into recession in 2001, with actual output falling below potential. The economy began to grow again in 2002, but not fast enough to close the gap between actual and potential output. We are on a path that is likely to close the gap over the next several years but there are considerable near-term downside risks. Effective stimulus would increase the rate of growth in the short run, putting people back to work faster, and closing the gap between actual and potential output more quickly and with greater certainty. The ideal stimulus policy would provide a strong boost to output and job-creation in the short run with a minimal longer-term budget impact. That means most of the budgetary costs and fiscal impact should be concentrated in the first year.
Policies that add substantially to the deficit beyond the first year provide stimulus that is unnecessary and could be harmful. If the economy is already operating close to its potential, with full employment, additional fiscal stimulus runs the risk of igniting inflation. To counteract such an inflationary effect from the fiscal accelerator, the Federal Reserve will be forced to apply the monetary brakes. Just as it is hard on a car to drive it using the accelerator and the brakes at the same time, it is hard on the economy to have an overly stimulative fiscal policy and an overly contractionary monetary policy at the same time. The net effect of that policy mix is to raise interest rates, which "crowds out" business investment or encourages borrowing from abroad to support spending in excess of what can be supported by domestic income alone. Too much crowding out over too long a period of time will lead to less capital formation, slower productivity growth, and ultimately, a lower path of sustainable output. These crowding out effects can easily be larger than the positive supply-side incentive effects that might arise from cutting tax rates.

Given these longer-term effects, stimulus policies must be judged not only in terms of their impact on the economy in the short run, but also on whether they have any impact on investment, capital formation, and potential output in the longer run. In the 1980s, for example, the large Reagan tax cut in 1981 probably played a role in bringing the economy out of the deep 1981-82 recession, though an easing of monetary policy was certainly critical. However, that fiscal stimulus came at a high cost, because the tax cuts affected budget deficits for years to come (so much so that the Congress and President Reagan undid some of the tax cuts in 1982 and subsequent years). In the 1990s, in contrast, a policy of fiscal discipline aimed at controlling budget deficits allowed the Federal Reserve to pursue an accommodative monetary policy that created an attractive interest-rate environment and encouraged investment. The result was the nation’s longest economic expansion on record.

Contrasting Stimulus Proposals

The President and Congressional Democrats have offered contrasting views of what policies will be most successful in restoring full employment and promoting long-term growth. The President has proposed to spend over $700 billion between now and 2013 on tax cuts aimed at restoring jobs and growth. (In fact, the President’s 2004 Budget contains additional tax cuts that are not explicitly part of his
stimulus package and are not included in this analysis.) The upper panel of Table 1 describes the key provisions and illustrates how much of the cost occurs in the years beyond 2004 and how more than half of the cost is represented by the President’s dividend tax relief proposal.

Congressional Democrats, in contrast, have offered various proposals that share important common elements. One is that the maximum impact should occur in the first year. A second, related element is that the proposal should have a minimal impact on deficits in subsequent years. A third is that income tax cuts should be focused on middle- and lower-income taxpayers, who are most likely to spend the extra income. A final common element in the Democratic alternatives is that stimulus should include more than just tax cuts, in particular expanded unemployment insurance and relief for cash-strapped state and local governments. The bottom panel of Table 1 describes a generic Democratic alternative similar to those proposed by House Democratic Leader Pelosi and Senate Democratic Leader Daschle.
Table 1
Static Impacts of Alternative Plans on Federal Budget Deficit
(Billions of dollars, by fiscal year)

<table>
<thead>
<tr>
<th></th>
<th>2003</th>
<th>2004</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Change in deficit under the Bush plan</strong></td>
<td>40</td>
<td>116</td>
<td>730</td>
</tr>
<tr>
<td><strong>Taxes</strong></td>
<td>40</td>
<td>114</td>
<td>726</td>
</tr>
<tr>
<td>Acceleration of already enacted tax cuts</td>
<td>30</td>
<td>79</td>
<td>264</td>
</tr>
<tr>
<td>Eliminate individual tax on dividends</td>
<td>8</td>
<td>23</td>
<td>396</td>
</tr>
<tr>
<td>Increase expensing for small businesses</td>
<td>1</td>
<td>3</td>
<td>29</td>
</tr>
<tr>
<td>Relief for payers of alternative minimum tax</td>
<td>1</td>
<td>9</td>
<td>37</td>
</tr>
<tr>
<td><strong>Spending</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Re-employment accounts</td>
<td>0</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td><strong>Change in deficit under the Democratic alternative</strong></td>
<td>143</td>
<td>-24</td>
<td>110</td>
</tr>
<tr>
<td><strong>Taxes</strong></td>
<td>107</td>
<td>-33</td>
<td>59</td>
</tr>
<tr>
<td>Rebate of individual tax</td>
<td>71</td>
<td>0</td>
<td>71</td>
</tr>
<tr>
<td>50 percent depreciation bonus in 2003</td>
<td>32</td>
<td>-31</td>
<td>1</td>
</tr>
<tr>
<td>Small business expensing</td>
<td>2</td>
<td>-1</td>
<td>1</td>
</tr>
<tr>
<td>50 percent health tax credit</td>
<td>3</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Corporate governance</td>
<td>-1</td>
<td>-2</td>
<td>-19</td>
</tr>
<tr>
<td><strong>Spending</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Federal aid to states</td>
<td>36</td>
<td>9</td>
<td>50</td>
</tr>
<tr>
<td>Extend unemployment insurance</td>
<td>26</td>
<td>10</td>
<td>41</td>
</tr>
<tr>
<td>Extend unemployment insurance</td>
<td>10</td>
<td>-1</td>
<td>9</td>
</tr>
</tbody>
</table>

Sources: JEC Democratic Staff calculations using estimates from the Joint Committee on Taxation and the offices of the Democratic Senate and House Leadership.

A Qualitative Assessment

The following discussion assumes that the most pressing problems facing economic policymakers right now are ensuring that the economy does not slip back into recession and restoring full employment as quickly as possible. Concerns over the economy's underlying long-term growth potential are less pressing, given the available evidence on productivity. Thus, the President's "Jobs and Growth" proposal and the Democratic alternative are evaluated primarily by the criteria that are appropriate for assessing economic
stimulus proposals. Of course, ancillary effects on long-term growth are part of any such evaluation.

*Immediate versus delayed impact.* The President’s proposal provides about $40 billion of stimulus in fiscal year 2003 (or roughly $70 billion in calendar year 2003), compared with about $140 billion of 2003 stimulus in the Democratic alternative. Thus, the President’s plan would have to be well over twice as potent as the alternative for the immediate impact of his proposal to be as large this year when it matters. As discussed below, this is unlikely to be the case. The President’s proposal provides more stimulus in 2004 and subsequent years than it does in 2003 and more than is in the Democratic alternative. But this delayed stimulus runs the risk of coming too late and forcing the Fed to raise interest rates.

*Effect on the budget.* The President’s proposal costs more than $700 billion over 2003-13 (about $1 trillion when the associated debt service costs are factored in). The Democratic alternative, in contrast, is designed to concentrate its effect in the first year. The longer-term cost in that plan is actually lower than the first year cost, in part because the investment incentive component simply moves costs from future years to the first year. If the country’s major economic problem were weak underlying long-term growth potential, it might make some sense to try any policy that might have an impact, but in light of recent productivity performance, there are better uses for $700 billion than the tax cuts the President has proposed. The Democratic alternative provides stimulus without significantly worsening the budget in the long run.

*Temporary versus permanent tax cuts.* Most economists recognize that, other things equal, people are more likely to change their spending behavior when they receive a permanent tax cut than when they receive a one-time tax cut. Thus, if the President’s proposal were truly permanent and if that were the main thing that distinguished it from the Democratic alternative, one might expect a more immediate effect on spending and job creation from the President’s proposal. However, the President’s tax cuts may not be perceived as permanent if people believe that the problem of large budget deficits will be addressed through a tax increase at some point in the future. Moreover, there are other significant differences between the President’s proposal and the Democratic alternative.

First, the President’s proposal provides substantial benefits to high-income taxpayers, who have a higher saving propensity than middle or
lower income taxpayers and are therefore likely to spend a smaller fraction of their tax cut. In contrast, middle- and lower-income taxpayers may face borrowing constraints that keep them from spending as much as they would like. Thus, they are much more likely than upper-income taxpayers to spend any new income they receive. Second, the Democratic proposal contains more than temporary tax cuts. It includes spending for expanding unemployment insurance benefits, which would almost surely be spent by workers who have been out of a job for an extended period of time. It also includes grants to cash-starved state and local governments. These grants support immediate spending because they relieve states with balanced budget requirements from raising taxes or cutting spending. Finally, to the extent that its long-term budget costs add to perceptions of eroding fiscal discipline, the President’s program puts immediate upward pressure on interest rates, which discourages investment and other interest-sensitive spending.

Model-Based Comparisons

Econometric model simulations of the President’s proposal and the generic Democratic alternative prepared by the Democratic staff of the Joint Economic Committee support the qualitative conclusions reached in the last section. The findings reported here with respect to the President’s proposal are broadly consistent with the analysis by President Bush’s Council of Economic Advisers (CEA) and Macroeconomic Advisers, LLC (MA), a leading private modeling and forecasting firm. The relative magnitudes of the first-year impact of the Democratic alternative compared with that of the President’s proposal is broadly consistent with an analysis by Economy.com, another well-known private forecasting firm.

The JEC Democratic staff simulations were carried out using two different econometric models. One is the MA model, a commercial model that is widely used by government and private forecasters, including the CEA. The other is an academic model developed by Professor Ray Fair of Yale University. Each of these models is recognized as a credible, mainstream macroeconomic forecasting model.

A problem that can arise in interpreting the results of model simulations such as those discussed here is that different analysts using the same model to answer the same question can reach quite different
answers depending on the specific assumptions and judgments they make. The assumptions used in the simulations reported in this paper try to stay in a middle ground of plausible assumptions that do not systematically bias the findings in the direction of one policy or the other. They are described in a technical appendix, which is available separately.

Two key assumptions that merit comment are the assumption about the baseline path against which the policy changes are measured and the assumption about how monetary policy responds to the policy change. The impact of a given tax or spending change on key macroeconomic variables will be different depending upon whether or not the economy is operating close to full employment and whether or not monetary policy is accommodative. Thus, $100 billion of fiscal stimulus (tax cuts or spending increases) at a time when there is substantial excess capacity and low inflationary expectations would be expected to have more of an impact on jobs and economic growth than on actual or expected inflation. However, that same $100 billion of stimulus at a time when the economy is already near full employment is likely to have less impact on jobs and growth and more impact on inflation. In the former case, the Federal Reserve may well keep interest rates constant and allow the fiscal stimulus to have its full effect on jobs and growth. In the latter case, the Fed is far more likely to raise interest rates in order to choke off the fiscal stimulus and keep the economy from overheating.

The key baseline assumptions in the models used here are that the economy is in the process of recovering from its current slump and will make it back to full employment in the middle of the decade. The largest gap between actual and potential GDP is in 2003, with the gap narrowing and slack disappearing in subsequent years (as illustrated in Figure 1). Thus, the time when stimulus is likely to have its maximum impact on jobs and GDP is this year. In subsequent years, there is an increasing risk that the Fed will tighten monetary policy and choke off the stimulus if the economy is, in fact, already close to full employment.

The analysis of the President's "Jobs and Growth" proposal done by the CEA assumes that monetary policy accommodates the fiscal stimulus by allowing the money supply to grow faster than in the baseline in order to keep the Fed's interest rate target the same as in the baseline in the face of additional fiscal stimulus. Macroeconomic
Advisers, in their own preliminary analysis of the President's plan, assumes instead that the Fed is more restrictive and keeps the money supply growing at the same rate as in the baseline, so that interest rates go up as a result of the fiscal stimulus. Another alternative is to assume that the Fed has a "reaction function" based on its assessment of the relative risks of inflation and unemployment and adjusts the money supply accordingly. While this last assumption might seem to be the most reasonable, it rests on the assumption that the reaction function built into the model and based on past Fed behavior is a reasonable predictor of what the Fed would actually do in the face of the policy change being simulated.

The results reported here follow the CEA's monetary policy assumption, keeping the path of the Fed's interest rate target the same as it is in the baseline. Under this assumption, the first-year results are the most reliable, because there is considerable economic slack and monetary policy can be accommodative without risking inflation. Later-year results are less reliable and less easy to interpret, because the modeler must make some assumption about how and when the Fed would respond if a policy calls for more demand stimulus even though the economy is already at full employment (as is the case in the President's plan).

For those reasons, the table on the following page shows the first-year impact of the Bush and Democratic alternatives on key macroeconomic variables. Panel A shows the results of the JEC Democratic staff simulation of the two proposals using the MA model. Assuming the policies are implemented beginning in July, real GDP would be 1.1 percentage point higher under the Bush plan by the end of the year, but 1.6 percentage points higher under the Democratic alternative. The Bush plan would create 600,000 new jobs, compared with 1.1 million new jobs under the Democratic alternative. The unemployment rate would be 0.4 percentage point lower under the Bush plan, compared with 0.7 percentage point lower under the Democratic alternative. These results for the Bush plan are consistent with those reported by the President Bush's Council of Economic Advisers in their February 4, 2003, estimate of the impact of the President's plan (as reported in Panel B of the table). The CEA analysis is based on the Administration's own estimates of the cost of its plan, while the JEC Democratic staff analysis uses the more recent, higher estimate by the Congressional Joint Committee on Taxation.
The simulation using the Fair Model shows a somewhat smaller impact for the same policies than does the MA simulation. However, the relative strength of the Democratic alternative is still obvious. The stimulus to GDP is nearly twice as big and the growth in jobs and reduction in unemployment are much larger with the Democratic alternative than they are with the President's plan.

The final section of the table reports results from a comparison done by the private forecaster Economy.com. That comparison is based on the Bush plan and the plan introduced by Senate Minority Leader Daschle (which is very similar to the Democratic alternative in the JEC simulations). Because Economy.com does not present its results on precisely the same basis as the others, the table compares the average level of the key economic variables in calendar year 2004 to their level in 2002 (this produces results that are crudely comparable with the results in the first three panels). The Economy.com simulations show that the Democratic alternative provides substantially more stimulus when it matters most than does the President's plan.
Intermediate-Term Crowding Out

While it is technically possible to run the simulations out over several years, the results become more unreliable and difficult to interpret over time, as discussed earlier. For example, the CEA analysis of the President’s plan concludes that by 2007, real GDP is about a percentage point higher than it is in the baseline. If that gain reflected the kinds of supply side effects the program is touted to produce, it would be an impressive outcome. But it almost surely does not.

The CEA does not provide information on sustainable increases in the labor force or the stock of productive plant and equipment compared with the baseline, but it is very unlikely that those effects are large.
Rather the putative increase in output comes from continuing to stimulate demand even though the economy is at full employment. In the real world, the Fed would be very unlikely to allow such excess demand stimulus to go unchecked. Instead it would tighten monetary policy and raise interest rates. Under such circumstances the unemployment rate in 2007 would be about the same as in the baseline, but interest rates would be higher and the composition of GDP would be different. In particular, we would expect that consumption would be higher as a share of GDP and the trade deficit would be bigger (because higher interest rates tend to strengthen the dollar, which makes imports cheaper and makes our exports more expensive to foreign buyers). The impact on investment would depend on whether any encouraging effects from the tax cuts were enough to offset the discouraging effects from higher interest rates.

The JEC Democratic staff found it difficult to produce results that are easy to interpret for the years beyond 2003 in either the MA or the Fair Model. Typically, stimulus pushes the economy beyond full employment in 2004 and 2005 before restrictive Fed policy pulls it back below full employment in the next few years, setting off an oscillation around full employment. The CEA does not report year-by-year results beyond 2004, but the preliminary analysis of the Bush plan by Macroeconomic Advisers shows such a cyclical pattern, with the level of GDP eventually falling below the baseline level.

Economy.com does not report year-by-year results, but it does report ten-year average growth rates relative to baseline. The Economy.com simulation of the Democratic alternative is consistent with Figure 1: the gap between actual and potential output is closed more quickly than in the baseline, but once full employment is restored output is about the same as it would be in the baseline. The Bush policy, in contrast, has less initial stimulus and ends up with GDP below baseline in 2013, which is consistent with the crowding-out discussion in this section and the reduction in the potential growth path in Figure 1 associated with larger budget deficits.
National Saving and National Income in the Long Term

It takes time for either supply-side incentive effects or reduced national saving to have a noticeable impact on the labor supply, the capital stock, and the level of GDP, and these effects are typically modest. For example, in its own simulation of the President’s plan, Macroeconomic Advisers finds that real GDP in 2017 is about 0.3 percentage point lower than it is in the baseline, because the national saving and crowding out effects on capital formation are larger than the tax cut’s direct incentive effects. Because the Democratic alternative has little impact on the budget beyond the first year, it is essentially neutral with respect to both national saving and direct supply side effects.

For the reasons discussed earlier, the long-run macroeconomic effects estimated from a macroeconomic forecasting model are less interesting and useful than the short-run effects estimated from such models. Growth models of greater or lesser sophistication are probably more useful for estimating the long-term effects. This section discusses estimates based on a very simple “Solow growth model,” named for the Nobel laureate economist Robert Solow. The analysis is similar in spirit to the discussion of how deficits affect interest rates by crowding...
out capital formation contained in the 2003 Economic Report of the President, prepared by President Bush's Council of Economic Advisers.

This framework abstracts from business cycle fluctuations in the economy and focuses on potential output, which is determined by the size of the capital stock (factories and machines), the size of the labor force, and the pace of technological progress (which measures the extent to which, over time, the economy can produce more and better products for any given amount of labor and capital). Tax cuts can act directly on labor supply decisions, capital investment decisions, and possibly decisions affecting technological progress by creating positive (or sometimes negative) incentives. When these supply-side incentive effects are positive, they raise potential output and future incomes—though much of the evidence suggests that the magnitude of these effects is modest. Moreover, even those modest effects will only be realized fully if the tax cuts are financed in a way that does not harm potential output and future incomes.

For economists, the best-case scenario for realizing the efficiency-enhancing effects of tax cuts is to replace a less efficient revenue source with a more efficient revenue source, leaving total revenue unchanged (though other considerations, such as fairness and administrative simplicity must also be factored in). Cutting valuable programs to pay for a tax cut or financing the tax cut with debt are less desirable and may, on balance, outweigh the supply-side benefits.

The apparent disregard for the harmful effects of budget deficits apparent in the President's 2004 Budget suggests that there is no intention to make the "Jobs and Growth Initiative" revenue-neutral. (Indeed, with the other tax cuts and spending decisions in the President's budget, the CBO estimates that the budget would be in deficit every year through at least 2013.) In that case, once interest costs are taken into account, the program would add about $1 trillion to the public debt by 2013. That is $1 trillion not available for capital investment that would raise potential output and national income in 2013. Calculations described in the box suggest that this increase in debt could lower national income in 2013 by roughly 0.4 to 0.6 percent. Any offsetting supply-side effects are very unlikely to be larger than this and are most likely to be significantly smaller.
Conclusion

This study has compared the macroeconomic effects of the President’s “Jobs and Growth Initiative” with a Democratic alternative modeled after proposals offered by Democratic leaders Pelosi and Daschle in the House and Senate, respectively. The study has emphasized the first-year impact on jobs and growth, because the main problem in the economy is economic slack—too much unemployment and excess capacity and too little growth to restore full employment. Because it is larger and better focused in the first year, the Democratic alternative delivers roughly twice the job-creating stimulus of the President’s plan at a time when such stimulus is most needed.

The Democratic plan is designed to provide short-term stimulus, and therefore shuts off after this year. In contrast, the President’s plan provides most of its stimulus later, when it is less likely to be needed and more likely to be counterproductive. Stimulus that is applied when the economy is already at full employment would generate inflation if it were not offset by a contractionary monetary policy. But such a clash of monetary and fiscal policy produces higher interest rates, lower investment, and more borrowing from abroad.

In the long run debt-financed tax cuts lead to a crowding out of private investment and increased foreign borrowing that reduces national income below what it otherwise would be. Those effects are not trivial but they are relatively modest (a loss equal to roughly 0.5 percent of GDP in 2013 according to the calculations in this study). However, any likely positive supply-side incentive effects are probably smaller still. The Democratic plan has a much smaller impact on debt and hence is largely neutral with respect to long-term growth.

Endnotes


LOW-INCOME WORKING FAMILIES DESERVE THE INCREASED CHILD TAX CREDIT
REPUBLICANS USE PAYROLL TAXES TO FINANCE TAX CUTS FOR THE WEALTHY
June 2003

Overview

House Republicans oppose legislation that would extend the recently enacted increase in the child tax credit to low-income working families. They argue that these families don’t deserve tax relief because they don’t pay income taxes. House Republicans also hope to use increases in the child tax credit for the working poor to leverage votes for future costly tax cuts that will once again favor upper-income families.

Despite erroneous claims to the contrary, low-income families do pay a significant amount of federal taxes. Payroll taxes for Social Security and Medicare are on average about 12 percent of income for families with income between $10,000 and $20,000.¹ These families also pay federal excise taxes, which, according to the latest estimates from the Congressional Budget Office, are approximately another 3 percent of their income.² On top of the federal taxes they pay, these families also pay income, sales, and property taxes at the state and local level.

In fact, wealthy families are protected from paying Social Security payroll taxes on all of their income. Only earnings – not investment income – are subject to Social Security tax and the law caps taxable wages at $87,000 – far below the earnings of many affluent Americans.

Payroll Taxes Finance the Tax Cuts

Republicans dismiss the Social Security payroll taxes paid by low-income families because, they claim, those taxes are used to pay Social Security benefits. Why this should somehow make payroll taxes irrelevant is a mystery. After all, upper income taxpayers receive tangible benefits from their taxes such as education, national defense, and homeland security. It’s difficult to argue that income taxes paid by upper-income families for services that they use and value somehow matter, but payroll taxes paid by lower-income families do not matter.
Moreover, the Republican claims are not even true. Under the policies of this Administration, a significant portion of Social Security taxes are not set aside for the Social Security program but are instead used – like income taxes – to finance the everyday functions of the federal government. In the current budget environment, every dollar that the House Republican leadership provides for permanent tax relief is a dollar borrowed from Social Security. While Social Security surpluses are invested in Treasury Bonds, these funds are not being used to pay down debt, increase national savings and prepare for the baby boom. Instead, these funds are being spent immediately. Therefore, payroll taxes are in fact financing tax cuts that largely benefit the wealthiest Americans.

According to the Congressional Budget Office, Social Security revenues will exceed outlays by $160 billion in fiscal year 2003 and by a cumulative $1.2 trillion in 2003 through 2008 (Chart 1). The surplus amounts to a third or more of Social Security revenues. While the Social Security program is running a surplus, the rest of government will run a deficit of over $400 billion in 2003, and a cumulative deficit of over $1.5 trillion in 2003-2008. These huge deficits will more than soak up the entire Social Security surplus.

Thus, over at least the next five years, the Administration will use a third or more of all Social Security payroll tax contributions – including those paid by low-income families – to pay for everything but Social Security benefits. A low-income family earning $15,000 per year pays about $1,860 in direct and indirect Social Security payroll taxes. Over $600 of those taxes pays for non-Social Security spending.

This use – or misuse – of Social Security revenues to finance ordinary government functions only highlights the irresponsibility of tax cuts that add to the long-term deficit. The looming costs associated with the retirement of the baby boom generation will begin in less than a decade. Rather than adding to the burden that we will pass along to our children and grandchildren, the federal government should use surplus Social Security revenues to pay down existing debt and not to finance tax cuts that favor the wealthy few.

**Brief Description of the House and Senate Bills**

The Jobs and Growth Tax Act of 2003, which was enacted just last month, excluded 6.5 million low-income families from receiving a
child tax credit up to $1,000 per child. The Senate has passed a relatively modest $10 billion bill that would give the expanded child credit to families making from $10,500 to $26,625 a year. The Senate bill would fully pay for those benefits by extending Customs Service fees.

In an effort to leverage a broader set of tax cuts than the Senate has passed, House Republicans have unveiled a new unpaid for $82 billion tax bill that would extend the child credit through 2010. Their bill is primarily an excuse to enact more tax breaks and not to help low-income families. The House bill does not include offsets for the new tax cuts, and therefore would further increase the deficit.

House and Senate Republicans could not resist tilting their bills in favor of higher-income families. Both bills would increase the child tax credit for married couples earning at least $110,000. While no additional working poor families – those making less than $10,500 a year – would become eligible for the credit, many families earning between $150,000 and $200,000 would become eligible once the changes are fully in place. The Senate bill makes this provision partially effective in 2008 (fully effective in 2010) at a cost of $4.8 billion and the House bill is fully effective in 2003 at a cost of $20.4 billion.

The increase in the upper-income limits for the child tax credit was made in the name of marriage penalty relief. When fully phased-in the income level at which the child credit phases out for married couples ($150,000) will be twice the income level at which the credit phases out for single parents ($75,000). Yet both bills fail to include a similar provision to accelerate scheduled marriage penalty relief for lower-income families receiving the Earned Income Tax Credit.

Conclusion

Low-income families pay their fair share of federal taxes and deserve the tax relief that would come from an increase in the child tax credit. Congress should pass legislation making more low-income families, not more high-income families, newly eligible for the child tax credit.
Endnotes


3 Congressional Budget Office, The Budget and Economic Outlook: Fiscal Years 2004-2013, Table 1-5, p. 19 and Table 3-7, p. 64.

<table>
<thead>
<tr>
<th>Chart 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>GOP Uses a Third of Social Security Payroll Taxes to Finance Tax Cuts, Everyday Government Expenses</td>
</tr>
<tr>
<td>Social Security Trust Fund Surplus (in billions)</td>
</tr>
<tr>
<td>Social Security Payroll Tax Receipts (in billions)</td>
</tr>
<tr>
<td>Surplus as a Percentage of Tax Receipts</td>
</tr>
</tbody>
</table>

Source: Congressional Budget Office, The Budget and Economic Outlook: Fiscal Years 2004-2013, Table 1-5, p. 19 and Table 3-7, p. 64.
Recent proposals to reform the federal unemployment insurance system (such as the Administration’s Personal Reemployment Accounts) would link unemployment compensation (UC) to reemployment. Proponents of those reforms cite the tendency for increased unemployment benefits under the present system to increase the duration of unemployment modestly. They argue that reemployment incentives would get the unemployed back to work more quickly and save the federal government money.

Although some of the proposed reemployment incentive schemes may indeed reduce the duration of unemployment somewhat, none can or should substitute for the more traditional approach of temporarily extending federal unemployment benefits when labor markets are weak. Unemployment insurance has social benefits that are often overlooked in the reform discussions:

- increasing UC maintains incomes and reduces poverty;
- increasing UC effectively stimulates overall demand; and,
- increasing UC can raise productivity.

As a result, temporary extensions of UC can generate spillover benefits for society that far outweigh any additional social costs that may result from a modest increase in the duration of unemployment.

**Unemployment Insurance, Income Maintenance and Poverty Reduction**

Financed in part by payroll taxes on workers, the unemployment insurance program aims to help workers who have lost their jobs adjust to their income loss until they find new work. Critics of the existing system, such as the Bush Administration, have alleged that the availability of unemployment insurance has led many recipients to wait until their benefits expire before taking jobs.¹

However, that view is at odds with those of leading economists. Alan Greenspan, for example, observed: “when you get into a period where
jobs are falling, then the arguments that people make about creating incentives to work no longer are valid and, hence, I’ve always argued that in periods like this the economic restraints on the unemployment insurance system almost surely ought to be eased to recognize the fact that people are unemployed because they couldn’t get a job, not because they don’t feel like working.” Indeed, careful statistical studies by leading researchers have found little evidence that higher UC leads recipients to take jobs just before their benefits run out.

During hard times, when overall unemployment is high, few (if any) jobless workers would choose to remain unemployed just for the UC. At best, UC replaces only a small fraction of the recipient’s lost income. Well under half of those claiming benefits actually receive the maximum benefit. Moreover, those receiving the maximum benefit are typically replacing less than half of their previous earnings. Accordingly, in hard times, unemployed workers must draw down their wealth holdings to maintain themselves and their families. However, the financial holdings of the unemployed are rarely even close enough to tide them over during hard times. Indeed, nearly a third of all workers do not have sufficient wealth to cover even a tenth of their lost income.

Many workers who lose their jobs are not merely inconvenienced by their unemployment—their very survival is threatened, as is their viability as future providers for themselves and their families. The availability of regular and extended UC has served to reduce poverty and keep many of those who are most vulnerable to economic downturns from falling below subsistence levels of consumption. Without regular and extended UC, nearly three out of every four UC recipient would have fallen into poverty during the 1990 recession; in fact, with UC, fewer than half were impoverished after exhausting their regular benefits. Unemployment insurance also keeps recipients from cutting back on critical needs such as food and housing.

Poverty carries with it social costs that go beyond the dollar loss of income to those who are impoverished. Deteriorating health and rising crime rates associated with increased poverty impinge on society as a whole. As a result, reducing poverty among those workers who are jobless through no fault of their own has spillover benefits for society at large. To the extent that regular and extended UC helps some workers meet their subsistence needs during hard times, the
unemployment insurance system helps society maintain a healthier and potentially more productive labor force than would have been the case in the absence of UC.

**Unemployment Insurance Works to Stabilize Demand and is an Effective Stimulus**

Unemployment insurance has worked to moderate cyclical fluctuations in income. Additionally, temporarily extending regular unemployment benefits is an extremely effective way of stimulating the economy when unemployment is high. Directly lessening the severity of an economic downturn for some members of society indirectly benefits all of society.

Because UC rises with the overall level of unemployment, unemployment insurance blunts some of the force of an economic downturn. Studies have shown that the availability of unemployment insurance has contributed to a significant moderation in U.S. business cycles since World War II.\(^8\)

Studies have shown that temporarily extending unemployment benefits can be an extremely effective way of increasing demand when unemployment is high. Because recipients of extended UC are likely to spend all of the additional benefit, overall demand is boosted to a far greater extent than would be the case with a tax cut.\(^9\) That means that extending UC yields far more bang (stimulus) for the federal buck than other approaches to stimulating the economy.

**Unemployment Insurance Can Enhance Productivity**

When labor markets are weak, it takes longer to find a job. Some of the jobless will continue searching as long as they can to find productive employment that matches their skills. Others will use their time to improve their skills, enhancing their productive potential for better times. Still others, at the end of their financial rope, will be forced to commit themselves to less productive jobs than they would be capable of in a stronger labor market or drop out of the labor force altogether.

Increasing UC may encourage those who are on the verge of settling for a less productive job to continue searching and possibly land a better job. To the extent that is the case, the increased UC will increase
the duration of unemployment modestly. However, some recent research has demonstrated that the social benefits stemming from higher output and productivity tend to outweigh the social costs stemming from modestly increased duration of unemployment.10

ENDNOTES


Glenn Hubbard, the recently departed Chairman of the President’s Council of Economic Advisers (CEA), testified in February before the Joint Economic Committee that one advantage of the Administration’s proposed Personal Reemployment Accounts (PRAs) over traditional unemployment insurance (UI) is that “traditional insurance encourages workers to wait until their insurance runs out before finding a new job.” This language paints a picture of workers who could go back to work anytime they want to, but prefer an unemployment check to a (larger) paycheck and the dignity of work.

Common sense tells us that this language is an insulting and highly misleading caricature of worker behavior, especially in a tough job market such as we have now. But Hubbard presented a chart that seemed to lend at least some support to the proposition that unemployed workers are more inclined to take jobs about the time their benefits run out. Upon closer inspection, however, that presentation too paints a very misleading picture of how traditional unemployment insurance affects workers’ incentives.

The Data and Their Interpretation

Chart 1 (Panel A) is a reproduction of the Hubbard presentation. The data are from a 1990 study that examined 1980-81 data from the Panel Study of Income Dynamics (PSID), an annual survey that tracks the same people over time. The underlying data are the 703 families in which the head was a job loser and a UI recipient in the sample period (and, separately, the 412 job losers who did not receive UI). The statistic plotted is the re-employment rate by duration of unemployment. In other words, the chart shows the number of people who find work in each two-week period, expressed as a proportion of the number of people still unemployed at the beginning of that two-week period. That “hazard rate” shows a jump around weeks 25-26 (when regular benefits expire) and around weeks 39-40 (when extended benefits expire). What it does not show is that, for UI recipients, over three-quarters of the people in the sample were already back to work by the end of the 24th week of unemployment and more than 90 percent were already back to work by the end of the 38th week.
Chart 1 (Panel B) shows the same data, but in a way that provides a better perspective on whether most workers would rather have a job or would rather wait for their benefits to expire before taking a job. It depicts the proportion of original job losers who are still unemployed by duration of unemployment. This presentation shows that nearly a third of UI recipients were back to work by the end of the first month. By the time their benefits were about to expire, only 159 of the original 703 job losers were still unemployed. The 32 people who took jobs in week 25 or 26 may be a relatively large percentage of the number still unemployed, but they represent less than 5 percent of original job losers. Clearly, most workers do not wait until their benefits are about to expire before taking a job.

The charts also show that the experience of UI recipients is similar to that of unemployed workers who do not get UI. Researchers have found statistical evidence that receiving UI may be associated with slightly longer periods of joblessness, but, properly interpreted, the data clearly show that the magnitude of any such effect is small. A large fraction of UI recipients are back to work long before their benefits expire. Setting the length of unemployment benefits involves balancing the provision of valuable benefits to workers who are having trouble finding re-employment against the risk of creating disincentives to look for work. In normal labor markets, the 26-week limit seems to do a good job of striking the right balance, but in soft labor markets where it is harder to find a job, there is a strong case for extending benefits over a longer period of time.

Federal Reserve Chairman Alan Greenspan made a similar observation in testimony before the Joint Economic Committee last November:

*But when you get into a period where jobs are falling, then the arguments that people make about creating incentives to work no longer are valid and hence, I've always argued that in periods like this the economic restraints on the unemployment insurance system almost surely ought to be eased to recognize the fact that people are unemployed because they couldn't get a job, not because they don't feel like working.* November 13, 2002
Evidence on Personal Reemployment Accounts

The CEA evidence is part of the Bush Administration’s strategy to sell PRAs as a substitute for extended unemployment benefits. In addition to the evidence discussed above, the Administration cites findings from a handful of demonstration projects in the 1980s that evaluate the efficacy of employment bonuses. However, the bonuses evaluated in these demonstrations differ in important ways from the President’s proposed PRAs. Moreover, evaluations of these demonstration projects
suggest a number of lessons that have not been followed in the design of PRAs.

**PRAs are different from the bonuses evaluated in experimental programs.** In the mid- to late-1980s, experiments were conducted in three states to test the potential of reemployment bonuses to reduce the duration of unemployment.\(^3\) The researchers evaluating the experiments found a positive but weak link between receiving a bonus and getting back to work faster. The impact of the bonuses ranged from a decrease in the duration of unemployment of 1.2 weeks (in an experiment where the average duration of unemployment was nearly 20 weeks) to a decrease of 0.4 weeks (in an experiment where the average duration was 15 weeks).\(^4\) In only one case was the program judged to be cost effective, in the sense that the reduction in UI costs was large enough to offset the costs of the program. In the other two cases, the savings from reduced UI benefits were not greater than the costs of the bonuses plus the administrative costs of running the program.

The PRAs proposed by the Administration are even less likely to be cost-effective and could be perverse. First, a significant fraction of people who qualified for a bonus in the experiments failed to claim their bonus, reducing the expense of the program. Such an outcome would be less likely in a widely publicized national program like the President’s proposed PRAs. Second, and more important, the experimental bonuses tested were straight cash bonuses that went to unemployed people who found and retained new jobs. Those receiving bonuses received no special training or support services, but they were eligible for the services available to all unemployed workers. The Administration’s proposed PRAs, in contrast, provide a larger cash bonus and continued access to training services, but now require workers to pay for training that was previously free out of their bonus. This arrangement creates a perverse incentive to avoid training if workers try to preserve the cash value of their bonus while hoping to get a job quickly, even if that means neglecting training that could upgrade their skills and increase their potential earnings.

**Lessons from the experimental programs.** The researchers who evaluated the experimental programs also drew lessons about what was likely to work and what was not. Those lessons were not heeded in the design of PRAs. The researchers concluded that a cost-effective program would have the following features: relatively small bonuses, a
long waiting period in a new job before the bonus is paid, and careful targeting to those workers most likely to exhaust their UI benefits. However, the President's proposed PRAs are significantly larger than the bonuses tested in the 1980s, and they pay 60 percent of the bonus as soon as a person finds a job, withholding only 40 percent until the person has maintained the job for an adequate period of time.

One finding the Administration did incorporate into its proposal was to require states to target PRAs to those workers most likely to exhaust their unemployment benefits. But while researchers have concluded that such targeting would make the program more effective, such targeting of bonuses has yet to be tried and, as with anything new, there are practical issues to be worked out that would delay its effectiveness. Any delay in the implementation of an unemployment bonus program further decreases its ability to help the millions currently in danger of exhausting their benefits this spring.

**PRAs are not a substitute for extended UI benefits.** The Administration appears to be offering PRAs as a substitute for a further extension of unemployment benefits, the traditional response to the difficulties unemployed workers face in a recession and its aftermath, when labor markets are soft. Once again, however, the experimental evidence is not supportive of such a policy shift. The one demonstration program that was cost-effective took place over a two-year period when unemployment declined somewhat nationwide, not in a weak labor market such as we are experiencing now. An analysis of regional differences in another program found that the effect of bonuses in reducing the duration of unemployment declined significantly to almost nothing in a region with a weak labor market. And by the Administration's own estimate, only one-sixth of the long-term unemployed likely to exhaust regular state UI benefits would be served by PRAs.

**Conclusion: Unemployment Insurance is a Better Policy**

A balanced reading of the evidence from the demonstration projects is that well-designed reemployment bonuses may have a small positive effect in reducing the duration of unemployment in a healthy labor market. When there are available jobs, re-employment incentives can encourage unemployed workers to look harder (and there is a reasonable probability that an intensified job search will be effective for some). But bonuses or PRAs do not create jobs. In a weak labor
market such as we have now, workers may look harder, but the jobs are not there.

In this context, the $3.6 billion proposed by the administration to fund PRAs is not the best policy. Instead, thirteen weeks of additional UI benefits could be funded for approximately the one million workers who have exhausted all UI benefits without finding a job. Such a proposal would provide more direct stimulus and direct relief to workers.7

Endnotes


2 Panel B of Chart 1 shows the number of people who are still unemployed at the beginning of each two-week interval, whereas Panel A of Chart 1 shows the percent change in that number, expressed as a positive number to emphasize that the change represents people who found jobs. Thus, the same 20 percent hazard rate shown in Panel A of Chart 1 for weeks 1-2 and weeks 25-26 corresponds to very different raw numbers, because, as Panel B of Chart 1 shows, the base number of unemployed is very much smaller in weeks 25-26 than it is in weeks 1-2.

3 The first was in Illinois from 1984-85, and then Pennsylvania and Washington followed in 1988-1989. A fourth state, New Jersey experimented with a different type of bonus program and is rarely included with the others in evaluations of bonuses.


Research Says About Personal Reemployment Accounts — A Policy That Fails the Long-Term Unemployed” (Washington, DC February 2003).

DEBUNKING THE ARGUMENT THAT UNEMPLOYMENT IS NOT HIGH ENOUGH TO JUSTIFY EXTENDING UI BENEFITS
March 2003 (Updated April 2003)

Many Republicans have argued that the current unemployment rate is not high by historical standards, and is below what once was considered full employment by economists. Therefore, they argue that unemployment insurance (UI) will not have to be extended again.

However, the labor market continues to show very sluggish performance, and the current unemployment rate masks the severity of that sluggishness. The impact of a recession is best measured by the change in unemployment or the change in the number of jobs from pre-recession levels – not by the level of unemployment or employment.

A careful assessment of the full range of labor market indicators shows that the job market today is at least as weak and possibly weaker than it was in the 1990-91 recession and subsequent jobless recovery. A comparable number of people have lost their jobs and they are having just as hard a time finding jobs now as in the last recession. The number of jobs available has shown no improvement over the last year and the unemployment rate fails to capture individuals who become discouraged by the lack of job opportunities and drop out of the labor force. More workers are now exhausting their unemployment benefits. Thus, today’s lower unemployment rate does not provide a legitimate justification for not renewing the extended UI benefit program that is scheduled to expire in May.

- The increase in unemployment in this recession is comparable to the last one.

Because the unemployment rate is lower now (5.8 percent) than it was during the economic slump of the early 1990s (7.8 percent at its peak), many Republicans have mistakenly concluded that the employment situation is less dire today than it was a decade ago. This is wrong for two reasons. First, the unemployment rate recently has been as much as 2.2 percentage points higher than it was before the recession began—a jump in the unemployment rate that is roughly comparable to the increase that took place in the early 1990s. This means that the increase
in the numbers of unemployed individuals in this recession is comparable to the last recession.

Second, the robust economic expansion of the 1990s drove the unemployment rate to 30-year lows, so the unemployment rate is lower today simply because it started at a lower point when the current slowdown began. If unemployment rates were to return to the peak of the early 1990s recession, that would result in increases of roughly twice as many unemployed people as in the last recession.

- Jobs have declined sharply and are not recovering.

The trend in private sector payrolls reflects net job creation or loss and is generally regarded by economists as the most accurate indicator of the overall strength or weakness of the labor market since it is based upon a survey of businesses. Through the end of last summer, declines in payrolls mirrored the experience of the 1990-91 recession. (Chart 1) Since then, however, job opportunities have slumped to a greater extent than was the case a decade ago.

![Chart 1](image)

In March, private sector employment was 2.3 percent below its level in March 2001 and there were 2.6 million fewer jobs than when the recession began. At the same point in the business cycle a decade ago, private payrolls were only 1.5 percent below peak. Thus, over 900,000
more jobs have been lost in this recession than in the last. Moreover, both the current and 1990-91 economic slumps have hit payrolls more severely at this point after the recession began than would be expected from previous business cycles. If jobs had grown as they typically had in the eight postwar business cycles prior to 1990, private payroll employment would have recovered to its cyclical peak level by now.

- More workers are dropping out of the labor force.

Another important labor market indicator is the employment-to-population ratio, which reflects not only changes in the unemployment rate but also changes in the portion of the population that is in the labor force, either working or seeking work. During an economic slump, a decline in labor force participation tends to show discouragement about the prospects of finding a job. The proportion of the working age population with jobs has declined by 2.0 percentage points since its business cycle peak in March 2001. At the same point in the business cycle a decade ago, the employment-to-population ratio had declined by only 1.2 percentage points. This means that 1.7 million more people are not employed or have dropped out of the labor force during this recession than the in last one.

- More people are exhausting their UI benefits.

Two features of the current employment situation are especially relevant for the decision to extend UI benefits. First, both the current and previous spells of joblessness have been especially harsh on the long-term unemployed: then and now, more than one in every five of the unemployed has been jobless for more than 26 weeks. This is important because regular UI benefits run out after 26 weeks.

Second, as was the case in the 1990-91 recession but not in the prior postwar recessions, proportionally fewer of those losing jobs do so through temporary layoffs. From the start of the current recession through the end of last year, more than 9 out of 10 persons who became unemployed believed their job loss was permanent. That is significant, because UI recipients are workers who have lost their jobs, and the trend during this and the previous slowdown toward fewer temporary layoffs among job losers suggests that those unemployed workers will have a tougher time finding new productive employment.
These two features of the current employment situation are reflected in both the number and rate of workers exhausting regular state UI benefits. The increase in the past year of the number of workers exhausting regular state UI benefits is 2.2 million more than when the recession began. This increase in the number of exhaustions is more than the increase in the previous recession (some 2.0 million even after adjusting for the size of the labor force).  

The Department of Labor computes a 12-month moving average exhaustion rate—the percentage of workers who run out of regular state UI benefits without finding a job. This exhaustion rate is the highest (43.1 percent) in the post World War era.

Because the federal government UI program has been far less generous than it was a decade ago, many more workers have exhausted their temporary federal UI benefits than was the case in the 1990 recession. The JEC Democratic staff estimates that, by the end of May 2003, 3.2 million workers will have exhausted all of their temporary federal UI benefits before finding work, compared with 2.2 million in the last recession.

**Conclusion**

The current data suggest that the need for extending UI benefits is no less today than it was in the 1990 recession. But in contrast with the 1990 recession, when the federal government stepped in to extend benefits five times and the program lasted for 27 months, the federal government has done so only twice during the current slowdown and if the program ends in May, the program will have lasted only 15 months. Even if unemployment declines somewhat over the next two months, and falls below the unemployment rate of 5.7 percent when the temporary federal program began in March 2002, ending the program in May is premature.

**Endnotes**

1 The chart shows the percentage of jobs lost relative to the peak. This automatically provides an appropriate adjustment for the size of the labor force.

The American economy is "soggy," according to Treasury Secretary John Snow. One reason is that the President and the Republican Congress continue to pursue trickle-down policies, instead of offering a real jobs and growth plan that would get the economy back to full employment quickly without undermining long-term growth.

A true stimulus plan would be fast-acting, in order to boost aggregate demand and put people back to work quickly without hurting long-term economic growth. Far from being the best policies to get the economy back to full employment as quickly as possible while enhancing its long-term growth prospects, Republican "jobs and growth" plans provide little job-creating fiscal stimulus now when it is really needed, even as they drain national saving through swollen deficits. Their plans weaken our ability to address fundamental future retirement and health care challenges and merely pass along the responsibilities to our children and grandchildren, all for the sake of more tax cuts that primarily benefit the richest of households.

The tax cut plans passed by the House and the Senate, recently culminating in the conference agreement, originated with the President’s "Jobs and Growth Initiative," a plan that would cost $726 billion in 2003-2013 (a trillion dollars when additional interest costs are counted). The conference agreement and all of the Republican plans share a common set of objectives—and a common set of flaws—that make them particularly inappropriate for addressing the real economic problems facing the American economy.

No Matter How You Gimmick It, It’s Still the President’s Plan

The Administration’s original "Jobs and Growth" tax cut proposal had a ten-year cost of $726 billion, or $994 billion with added interest costs. The centerpiece of the plan was the exemption of dividend income from individual income taxes, which alone amounted to nearly $400 billion. Congressional versions of the President’s plan have scaled back the official costs in order to satisfy moderate Republicans—who maintain that the size of the President’s original version is fiscally irresponsible. The conference agreement limits the tax cut to a $350 billion budget constraint, adopting the tighter
constraint of the Senate version but more of the features of the House version. Contrary to the spirit of fiscal responsibility, the conference agreement squeezed into a tighter budget constraint only by relying on gimmicks similar to those used for the 2001 tax act, with tax cuts "sunsetting" after only a few years. Without those gimmicks, the costs of this "more affordable" tax cut are nearly as high as the President's original version.

In working with Congress to obtain its dividend tax cut, the Administration suggested both phasing in various parts of their growth package as well as letting other parts expire within the budget window. Congressional Republicans ran with these ideas. The original House plan terminated many of its features at the end of 2005, although tax cuts for dividends and capital gains continued through 2012. The Senate plan phased in a dividend exemption in two years, with a 50 percent exemption in 2003 and a full exemption in 2004-6, after which dividend income would revert to a fully-taxed status. The conference agreement basically squeezes in the more generous capital income tax cuts of the House bill into the tighter Senate budget constraint by sunsetting the House tax cuts sooner. Dividend and capital gains tax cuts terminate after 2008 instead of after 2012, while the tax cuts more likely to benefit lower-income households (expansion of the 10-percent bracket, marriage penalty relief, and increased child tax credit) sunset at the end of 2004 instead of 2005. The conference agreement also leaves out the provision in the Senate bill that would have increased the refundable child credit for more low-income families.

After passage of the original Senate version, Senator Nickles tried to defend the sunset gimmick, claiming that the sunsetting of the dividend exemption would provide a good "testing" phase for dividend tax relief. But realistically, it will be nearly impossible to cancel such generous tax breaks, whether or not they have had any positive (or negative) effect on the economy.

As a result, Congressional versions of the Administration's growth plan effectively maintain the President's centerpiece dividend tax cut, and are realistically much more expensive than their official costs indicate. Simply continuing all of the proposed tax cuts through the end of the ten-year budget window brings the cost of the House, Senate, and conference plans to nearly $700 billion, close in size to the Administration's original $726 billion proposal.
The Tax Policy Center and The Center on Budget and Policy Priorities have estimated that, ironically, the true permanent ten-year cost of the House and conference plans is greater than the President’s original growth plan, and could reach over $1 trillion (even without counting added interest costs) through 2013. While the President’s original plan proposed to cut taxes on dividends and capital gains from corporate earnings that were already taxed at the corporate level, the House and conference plans actually go further by sharply reducing taxes on all capital gains and dividends, not just those from previously taxed corporate earnings.

Would the Republican Tax Cuts Really Create Jobs?

No. The Republican tax cuts are not well suited to stimulating employment growth over the near term.

Most economists recognize that the policies which work best at reviving growth and putting people back to work in a slumping economy are not the same as the policies that work best at promoting and maintaining sustainable long-term growth and a rising standard of living. The goal of the former is to stimulate purchases of goods and services immediately. Consumption is valued over saving when trying to get the economy out of a short-term slump, whereas encouraging saving is the priority when the goal is to promote stronger long-term growth. Slumps are relatively rare in the modern U.S. economy, but we are in one now and our first priority should be to avoid the economic waste associated with excess unemployment and underutilized industrial capacity.
<table>
<thead>
<tr>
<th>Individual provisions</th>
<th>Administration</th>
<th>House</th>
<th>Senate</th>
<th>Conference Agreement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cuts in the upper-bracket tax rates.</td>
<td>Accelerate the reduction in the top four tax rates scheduled to take place in 2004 and 2006. The rates would drop from 38.6, 35, 35, and 27 percent to 36, 33, 39, and 25 percent, respectively, retroactive to January 1, 2003.</td>
<td>Same as the Administration.</td>
<td>Same as the Administration.</td>
<td>Same as the Administration.</td>
</tr>
<tr>
<td>Increase in the income limits for the lowest income tax bracket</td>
<td>Accelerate the increases in the income limits for the 10 percent income tax bracket scheduled to take effect in 2008. The income limits would increase from $12,000 to $14,000 for married couples and from $6,000 to $7,000 for single filers. No change for head of household filers.</td>
<td>Same as the Administration for 2003-2005. Sunsets after 2005.</td>
<td>Same as the Administration</td>
<td>Same as the Administration for 2003 and 2004. Sunsets after 2004.</td>
</tr>
<tr>
<td>Tax cuts for certain married couples filing joint returns</td>
<td>Accelerate the increases in the standard deduction and the end point of the 15 percent tax bracket for married couples scheduled to take effect in 2008 and 2009. Scheduled increase in the start of the EPIC phase-out range for married couple not accelerated. The standard deduction for married couples would increase to twice the standard deduction for single. The end point of the 15 percent tax bracket would increase to twice the end point for singles.</td>
<td>Same as the Administration for 2003-2005. Sunsets after 2005.</td>
<td>Increases the standard deduction and the end point of the 15 percent tax bracket for married couples to 185 percent of the amount for singles in 2003 and to twice the amount for singles in 2004. Sunsets after 2014.</td>
<td>Same as the Administration for 2003 and 2004. Sunsets after 2004.</td>
</tr>
<tr>
<td>Increase in the child tax credit</td>
<td>Accelerate increase in child credit scheduled to take effect in 2010. The child tax credit would increase from $300 to $1,000 per child starting in 2003.</td>
<td>Same as the Administration for 2003-2005. Sunsets after 2006.</td>
<td>Same as the Administration, but also accelerates the scheduled increase in the child credit refundability rate. The refundability rate would increase from 10 percent to 15 percent.</td>
<td>Same as the Administration for 2003 and 2004. Sunsets after 2004.</td>
</tr>
<tr>
<td>Temporary AME relief</td>
<td>Raise the individual alternative minimum tax exemption by $8,000 for married couples and $4,000 for singles. Sunsets after 2005.</td>
<td>Raise the individual alternative minimum tax exemption by $15,000 for married couples and $7,500 for singles. Sunsets after 2005.</td>
<td>Raise the individual alternative minimum tax exemption by $11,500 for married couples and $5,750 for singles. Sunsets after 2005.</td>
<td>Raise the individual alternative minimum tax exemption by $9,000 for married couples and $4,500 for singles. Sunsets after 2004.</td>
</tr>
<tr>
<td>Description of Tax Cut Packages</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------------------------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Administration</strong></td>
<td><strong>House</strong></td>
<td><strong>Senate</strong></td>
<td><strong>Conference Agreement</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Reduce taxes on dividends and capital gains</strong></td>
<td>Exempt dividends that were fully taxed at the corporate level from individual income tax. Corporate earnings that were fully taxed but not distributed as dividends would increase the basis of corporate stock, lowering future individual income taxes on capital gains.</td>
<td>Tax all dividends and capital gains at a 15 percent rate (5 percent for taxpayers in the two lowest tax brackets). Sunsets after 2012.</td>
<td>Exempt 50 percent of all dividends from individual income tax in 2003. Exempt 100 percent of all dividends from income tax starting in 2004. Sunsets after 2008.</td>
<td></td>
</tr>
<tr>
<td><strong>Business Incentives</strong></td>
<td>Increase the amount of investment that small business can deduct immediately (expenses) from $25,000 to $75,000. Increase the income level above which the expensing limit phases out from $200,000 to $325,000.</td>
<td>Increase the amount of investment that small business can deduct immediately (expenses) from $25,000 to $100,000. Increase the income level above which the expensing limit phases out from $200,000 to $400,000. Sunsets after 2007.</td>
<td>Same as the House. Increase the amount of investment that small business can deduct immediately (expenses) from $25,000 to $100,000. Increase the income level above which the expensing limit phases out from $200,000 to $400,000. Sunsets after 2007.</td>
<td></td>
</tr>
<tr>
<td>Temporarily extend 5-year net operating loss carryback</td>
<td>No provision</td>
<td>Extend the 5-year net operating loss carryback through 2006. Waive the alternative minimum tax 50 percent limitation on the allowable losses. Sunsets after 2005.</td>
<td>No provision</td>
<td>No provision</td>
</tr>
<tr>
<td>Temporarily expand and extend bonus depreciation</td>
<td>No provision</td>
<td>Increase the portion of business investment that can be immediately deducted to 50 percent. Sunsets after 2005.</td>
<td>No provision</td>
<td>Increases the portion of business investment that can be immediately deducted to 50 percent. Sunsets after 2004.</td>
</tr>
<tr>
<td><strong>Other Provisions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>States fiscal relief</td>
<td>No provision</td>
<td>No provision</td>
<td>$10 billion for Medicaid assistance, $6 billion for state governments and $4 billion for local governments.</td>
<td></td>
</tr>
<tr>
<td>Revenue offsets</td>
<td>No provision</td>
<td>No provision</td>
<td>Includes $35 billion from repealing the exclusion for foreign earned income, $18 billion from extension of certain tax preferences, and $19 billion from curtailing tax shelters.</td>
<td></td>
</tr>
</tbody>
</table>
Alternative tax and spending policies have varying impacts on jobs and growth. In a “soggy” economy, with excess unemployment and idle industrial capacity, the immediate problem for policy is weak demand for goods and services. An appropriate response is to stimulate purchases of goods and services by putting money in the hands of people who will spend it quickly. Government spending is best suited to that task, but targeted tax cuts could also work to the same effect.

But the tax cuts favored by Republicans are not designed to help the economy now. They provide less job-creating stimulus now when it is needed the most than the Democratic alternatives. Moreover, they provide unnecessary and counterproductive stimulus once the economy is back to full employment; and they diminish future income by swelling the public debt and inhibiting investment.

Analyses of the job-creating stimulus from various tax cut or spending policies rank dividend or capital gains tax relief at the bottom in terms of effectiveness. For example, the private economic forecasting and
consulting firm Economy.com estimates that the dividend tax relief in the President’s program has almost no effect on GDP and jobs in the first year (9 cents of GDP per dollar of revenue loss, compared with $1.73 of GDP per dollar of extended unemployment benefits). In its analysis of the effects of changes in tax policy, the Congressional Budget Office found that capital gains tax cuts would mostly be saved, and hence would have only a small impact on purchases of goods and services and hence on jobs.

Most economists believe that tax cuts or spending increases that directly raise the disposable income of low- and moderate-income families are far more likely to be spent (and hence generate jobs and growth immediately) than tax cuts for higher-income taxpayers. The Republican proposals are heavily tilted toward higher-income taxpayers; the Democratic alternatives are more balanced.

Analysis by the Democratic staff of the Joint Economic Committee confirms these observations. The Democratic plans provide roughly twice the number of new jobs this year as the Republican plans (1.1 million versus 600,000 jobs by the end of 2003). The Democratic plans do not provide stimulus in subsequent years, because, once the economy is back to full employment, such stimulus is no longer needed. In contrast, the Republican plans continue to stimulate the economy in coming years and would most likely be offset completely by tighter monetary policy, which would produce higher interest rates but no additional jobs or growth. Moreover, as discussed below, the Republican plans increase the public debt, drain national saving, and weaken economic growth in the longer term.

**Would the Republican Tax Cuts Really Boost Long-Term Economic Growth?**

No. The Republican tax cut plans would hurt our nation’s longer-run economic prospects by reducing national saving and the funds available for investment.
By themselves, some kinds of tax cuts, such as reductions in marginal tax rates or reductions in taxes on investment, might contribute to long-term growth by encouraging labor force participation and capital formation. But even conservative economists who believe that the private sector is quite responsive to changes in tax rates do not believe that these responses would be so large as to offset the effects on the budget deficit. Public saving surely goes down a lot, while private saving may rise—but only by a little and with much greater uncertainty. Thus, the Bush tax-cut agenda will be harmful to national saving and economic growth. Contrary to the claims that Republican plans would provide a bigger boost to the longer-run economy, in fact, they would do much more harm than good.

The immediate effect of an extra dollar of federal borrowing to finance a tax cut is a one dollar reduction in the amount of national saving available to finance productive private investment. Private borrowers will then compete against each other for the available funds, raising interest rates. Three things can happen: some borrowers might decide that their investment is not worth undertaking at the higher borrowing cost; some additional private domestic saving might be forthcoming at the higher interest rate; and some foreigners may decide to lend more in the United States because of the higher interest rates.
The President's Council of Economic Advisers has estimated that the private saving response will be negligible, but that each dollar of debt will stimulate 40 cents of foreign capital inflows (purchases of U.S. assets that provide the funds to finance new investment). However, domestic investment financed by foreign borrowing makes a much smaller contribution to future domestic national income (and the U.S. standard of living) than domestic investment financed by U.S. domestic saving. Most of the earnings of that investment must be paid to the foreign lenders. Thus, irrespective of the impact on interest rates, increases in federal borrowing lead to less domestically financed investment and slower growth in national income.

An analysis by the JEC Democrats using macroeconomic models that account for the private saving response as well as the higher deficits found that because of its long-run budgetary costs, the President's original plan (with its $726 billion price tag) had adverse long-run supply-side effects that lowered national income in 2013 by 0.4 to 0.6 percent. If the proposal actually enacted were kept to $550 billion as required in the House, or $350 billion as required in the Senate, the adverse impact on growth would be correspondingly smaller. In fact, however, as discussed previously, Congressional plans use various gimmicks to limit the apparent size of their proposals. The true size could be as large as or larger than the President's original proposal, and hence the adverse effects on growth roughly equivalent or even worse.

The net negative impact of large tax cuts on the longer-run economy is a common finding under various types of macroeconomic models. Analyses by Professor Alan Auerbach (UC Berkeley) and Federal Reserve Board economists Doug Elmendorf and David Reifschneider found negative effects of the 2001 Bush tax cut on the longer-run economy. In their most recent (March 2003) analysis of the President's budget, the Congressional Budget Office found adverse macroeconomic effects if tax cuts are not paid for—that a proper "dynamic scoring" would raise, not lower, the costs of the Administration's tax proposals. Most recently (5/8/03), the Joint Committee on Taxation released estimates of the macroeconomic effects of the House Republican (H.R. 2) version of the Administration's jobs and growth plan, and found only negative effects on real economic activity and employment over the longer run (2009-13).
Economic theories that claim that private saving should fully make up for drops in public saving are unsupported by experience. What did we learn from the Reagan era and the fiscal discipline of the 1990s? The Reagan tax cuts pulled down both public saving and national saving; the tax cuts failed to generate the large supply-side responses that had been claimed by the proponents of the cuts. In 1993, President Clinton raised taxes to address the huge deficit problem, but the economic stagnation predicted by Republicans never happened; instead, the boost to public saving raised national saving and overall economic growth as well.

New Justifications for the Same Old Tax Cuts for the Rich

The Republican proposals are unfair and are heavily tilted toward the very top of the income distribution. Before the 2001 tax cut, the justification for large tax cuts for the rich was that we were simply “returning the people’s money” and getting rid of surpluses that were too big, and the rich were the ones who paid the most in taxes (because they had an even larger share of income).

After the tax cut, the terrorist attacks, and the acknowledged recession, the justification for large tax cuts for the rich was that they were the people who would most likely spend their tax cuts—for short-term stimulus—but most likely save their tax cuts, too. Both can’t be possible. What economic theory as well as empirical analyses tell us is that higher-income households actually save larger fractions of their income than other households, because they can afford to. So the short-term stimulus argument is unfounded. But the longer-term growth effects through the additional saving of high-income households are doubtful as well. Even though high-income households will indeed save some of their extra income, it is not clear that they would save a higher fraction of it than the public sector would have in lieu of the tax cut.

Now the message is job creation. The Republicans now claim that it takes money to create jobs, so that only through tax cuts for the rich will jobs be created. But most of the Republican’s proposed income tax cuts reward capital owners (primarily the rich) without directly encouraging new capital investment or higher output. Such tax cuts can’t be expected to create new jobs (even over the longer run) if they don’t encourage output. Furthermore, to the extent that some of the tax cuts do reduce the cost of capital facing businesses, some businesses
may be encouraged to substitute capital for labor without increasing their output, so that jobs are lost rather than gained. If the goal of the tax cut is really job creation, the tax cuts should be designed to directly encourage businesses to hire more workers.

The lion’s share of the tax cuts enacted in 2001 already went to the very richest of households, particularly the tax cuts scheduled to take effect after 2002. By 2010 when the 2001 tax cut is fully phased in, over a third of the tax cut goes to the richest 1 percent of households, while less than one fourth goes to the entire bottom 60 percent. Despite this, the Administration proposed additional tax cuts that would clearly benefit only high-income households: the dividend tax exclusion (introduced as part of the “growth and jobs” plan) and the new savings incentives (proposed in the President’s budget). As part of their growth and jobs package, the Administration also proposed to accelerate the portions of the 2001 tax act that highest-income households benefit the most from (rate reductions), while leaving unchanged (continuing to phase in slowly) elements of the 2001 tax cut that most benefit lowest-income families with children.

In advertising just how “fair” their growth package is, the Administration has repeatedly relied on the average tax cut statistic, stating that households will “on average” receive a tax cut of over $1000 in 2003. But this is far greater than what a typical household near the middle of the income distribution (a “median income” household) would receive; in fact, four-fifths of households would receive less than this amount. According to the Urban-Brookings Tax Policy Center, the middle 20 percent of households would get tax cuts averaging only $200 in 2003 from the President’s plan. Meanwhile, households in the top 1 percent would enjoy an average tax cut of over $20,000, and millionaires would get tax cuts averaging about $90,000.

The congressional conference agreement keeps the spirit of the Administration’s proposals—”leave no millionaire behind.” Largely adopting the features of the original House plan, the conference version is even more tilted toward the very wealthy than the President’s growth plan, because it replaces the President’s dividend exclusion with a tax cut for all dividends and capital gains. Capital gains are even more concentrated at the top of the income distribution than dividends. Republicans like to argue that most households have at least some dividend or capital gains income, but this obscures the fact that most households have very small amounts of such income, and the
wealthiest households receive most of this income. (The top five percent of households receives 75 percent of the benefits from reducing both capital gains and dividend taxes, and 64 percent of the benefits from the President's dividend tax cut.) According to the Tax Policy Center, under the House's capital gains and dividend tax cut (and hence under the conference agreement as well), millionaires would receive an average cut of over $40,000 in 2004 alone, while they would receive an average cut of around $30,000 from the President's dividend proposal. The conference agreement has the same capital gains and dividend tax cut, except that it sunsets sooner (after 2008 instead of after 2012) and for 2008 alone completely eliminates the capital gains and dividend tax for households in the bottom two tax brackets.

Republicans claim the five- or even zero-percent tax on capital gains and dividends for lower-income households makes their plan fair. But this is only a symbolic gesture of very little substance, because a zero rate can't help households that have none or little of that kind of income. Data from the Tax Policy Center indicate that only one out of ten households in the bottom 80 percent receives any taxable dividend or capital gains income, and that the typical tax cut for such households would be in the tens of dollars, not the tens of thousands of dollars that the millionaires would enjoy.

The conference agreement gives nearly 30 percent of the tax cut to the top 1 percent of households, but only 7 percent to the entire bottom 60 percent. The average tax cut for the over 80 percent of taxpayers with incomes of $75,000 or less is under $230. The average tax cut for millionaires is over $93,000. Appendix Table A shows the complete distribution of the tax cuts by income groups.

<table>
<thead>
<tr>
<th>Share of 2003 Tax Cut Going to:</th>
<th>Administration Proposal</th>
<th>Conference Agreement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top 1%</td>
<td>28.0%</td>
<td>29.1%</td>
</tr>
<tr>
<td>Bottom 60%</td>
<td>7.2%</td>
<td>7.2%</td>
</tr>
</tbody>
</table>

Source: Urban-Brookings Tax Policy Center
Do the Republican Plans Adequately Respond to Individuals Who Have Borne the Brunt of this Recession?

No. Neither the House nor Senate versions of the stimulus proposals extend federal temporary unemployment insurance (UI) benefits, even though they expire at the end of May. The conference agreement also fails to add the extension but in separate legislation the current federal UI program is likely to be extended through the end of 2003. The House provided no assistance to the states, while the Senate bill and conference agreement provide a minimal amount of fiscal assistance to state governments.

The Long-Term Unemployed

Although the temporary federal UI program will expire at the end of May for workers exhausting regular state UI benefits, neither the Administration budget, the House or the Senate Republican stimulus bills, nor the conference agreement extend the program. However, in separate legislation the current federal UI program is likely to be extended through the end of 2003. However, this separate legislation will not provide any further assistance to the approximately 1.1 million workers who have exhausted all of their unemployment benefits and still have not found work.

The unemployment rate today is 6.0 percent, higher than when the temporary federal UI program was created in March 2002, or extended in January 2003. During the last three months, over 540,000 private-sector jobs have been lost and the economy has lost 2.7 million private-sector jobs since the recession began. Private payrolls are 2.4 percent below their level in March 2001 when the recession began and job loss now exceeds that of the 1990 recession. On average, job losses in a recession bottom out after about 15 months and are erased within two years. The persistence of job losses at the 25-month mark in this recession is the most severe since the 1930s.

The latest employment report painted a bleak labor market picture. Overall, there are 8.8 million unemployed Americans, and about 4.4 million additional workers who want a job but are not counted among the unemployed. Another 4.8 million people work part-time because the economy is so weak. The average duration of unemployment spells
rose substantially in the latest report to 19.6 weeks—the highest level since January 1984.

Yet despite this grim unemployment situation, the Republican plan does not provide additional weeks to unemployed workers who have exhausted all of their UI benefits without finding work. Initially the 1990s program was about 13 weeks more generous than today. Today, the 1990s program is at least 7 weeks more generous. A less generous program today is one of the reasons why more workers have exhausted all of their UI benefits without finding work. Thus, providing additional weeks of benefits to the 1.1 million unemployed workers who have exhausted all of their UI benefits without finding work would make the current program roughly comparable to the temporary federal UI program in the early 1990s. And the federal UI program has over $20 billion of assets paid for by workers, which now could be expended on their behalf.

<table>
<thead>
<tr>
<th>Chart 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decline in Private Nonfarm Payrolls in the Current and Previous Cycles</td>
</tr>
</tbody>
</table>

There is simply no good economic argument for why the federal program should not provide additional benefits to these exhaustees. These unemployed workers have borne the brunt or pain of this recession. A new Hart Research survey documents these tremendous hardships: 62 percent of those unemployed for nine months or longer have substantially depleted their savings, and just over half have
borrowed money to meet basic expenses. Among workers who have run out of all unemployment benefits, nearly 7 in 10 report that exhausting their benefits has had a major impact on their financial situation.

The Fiscal Crisis of the States

Every week brings a new headline – or more – announcing another state’s proposed cutbacks in services or program eligibility as it responds to a worsening budget crisis. Numerous spending cuts in social programs, including Medicaid, have been announced by states as they work to close their widening funding gaps. Some 22 states have proposed or adopted cuts in Medicaid and the State Children’s Health Insurance Programs (SCHIP) that would drop coverage for at least 1.7 million people if all the proposals were adopted. Yet there was not one penny in the House Republican plan to assist States.

The conference agreement amended the Senate plan to provide $20 billion of fiscal assistance to state governments. One half ($10 billion) would be used to increase the federal matching rate in the Medicaid program. The remaining $10 billion would be allocated to states on the basis of population. These funds could be used for essential government services. However, a recent analysis by the Center on Budget and Policy Priorities concludes that the proposed federal tax changes will reduce state revenues substantially (by $15 billion to $37 billion over ten years). This could leave states on net with no additional—or even fewer—discretionary funds beyond those provided through the Medicare program.

The recession that began in March 2001 has hit state budgets from both sides. Income and sales tax revenues have fallen with reduced economic activity, while the demands on social services have grown as joblessness has increased and family incomes have declined.

Wanting to avoid cuts in entitlement programs and school aid, the states used a variety of options to close their 2002 budget gaps, including draining rainy day funds (26 states), raising certain taxes and fees (23 states), laying off employees, and borrowing against expected tobacco settlement payments. But revenues in the 2003 budgets continued to decline, and some expenditures grew faster than expected, so states were facing another $49 billion in deficits, that needed to be closed. In response, states are now resorting to more drastic fiscal measures, including cuts in Medicaid, education, childcare, and public
safety. Prospects for 2004 are worse: the National Conference of State Legislators estimates that 41 states will face a cumulative budget shortfall of $78 billion.

Specific examples of cuts include about 200,000 people who have already lost Medicaid coverage in Tennessee (by the state’s own estimate), nearly 23,000 adults in Connecticut who will lose Medicaid coverage starting in April (partly due to lowering income eligibility requirements from 150 percent to 100 percent of the poverty threshold), and a proposed change in eligibility requirements that would affect 50,000 working-poor parents (with incomes between 80 percent and 100 percent of poverty) in Ohio. GAO recently reported that some 23 states made changes in their child care programs that decreased the availability of child care assistance.

While the federal government can engage in deficit spending to meet immediate needs, the states currently cannot. Therefore, the federal government should provide relief to the states to help states mitigate the negative impacts of the recession on poor and working families. This will also aid job creation because states could reverse their cuts and inject additional spending into the economy quickly.

Are the Republican Tax Plans Fiscally Responsible?

No. The Republican plans would exacerbate the deterioration in the budget outlook to which the 2001 Tax Act was a major contributor. The preoccupation with tax cuts is especially irresponsible in light of the impending retirement of the baby boomers. Current tax cuts will increase the fiscal burdens passed along to our children and grandchildren.

What was a $5.6 trillion 10-year surplus when the President took office has disappeared, even without counting any current proposals. According to the Senate Budget Committee (based on the latest CBO data), enactment of the President’s new budget proposals would result in a $2.1 trillion 10-year deficit over the original 2002-11 period—a turn-around of an astounding $7.7 trillion.

The Administration and Congressional Republicans have repeatedly claimed that their tax cuts are not large by historic standards and that any deterioration in the budget outlook was largely out of their control. Both of those claims are contradicted by the facts.
The 2001 tax cut had a $1.9 trillion ten-year cost, including interest on the added debt. The Administration's new proposals would add another $2.7 trillion, to bring the total cost of the Bush tax-cutting agenda—just in the immediate ten-year budget window—to $4.6 trillion. However, these already-huge numbers grossly understate the cost of a fully-phased in, permanent version of the full Bush tax cut agenda, which reaches 2.3 to 2.7 percent of GDP—greater in present-value terms than the entire long-term shortfall in Social Security and Medicare.

The true cost of the 2001 tax cut alone is much greater than the official cost, because of the gimmicks of phase-ins and sunsets. In addition, many of the standard assumptions made in budget projections are unrealistic when it comes to future tax and spending policy. A particularly large bias in official estimates comes from assuming that expiring tax provisions will indeed expire and that Congress will allow the Alternative Minimum Tax to increase taxes for a larger and larger segment of the population. The official cost ignores interest costs as well. As a result, a more realistic estimate of the cost of the 2001 tax cut is much greater than the official cost—nearly $2 ½ trillion over the first ten years, much greater than the $1.35 trillion as officially scored. A fully-phased-in version of the tax cut would cost even more over 10 years—over $4 trillion, even before counting interest payments.

According to an analysis by the Center on Budget and Policy Priorities based on CBO data, the tax cuts already passed are responsible for nearly 60 percent of the deterioration in the ten-year budget outlook (2002-11). The Administration has repeatedly claimed that the deterioration was largely out of their control, but the fact is that even including the effects of the recession and other technical changes to the CBO budget forecast, the tax cuts already passed are responsible for around a third of the deterioration in the 10-year budget outlook. And this share is based on officially-scored costs, which vastly understate the true costs of the tax cuts.

The budget situation would be even worse if not for the expected surpluses from the Social Security program. Over the ten years 2002 through 2011, the CBO projects that Social Security revenues will exceed program outlays by $2.2 trillion. The deficit in the rest of the federal budget will more than consume the entire Social Security surplus. The 10-year on-budget deficit—which excludes the off-
budget transactions of Social Security and the Post Service—will reach $2.6 trillion in fiscal years 2002 through 2011. The President’s 2004 budget would increase the 10-year on-budget deficit over the same period to $4.3 trillion.

The Administration has also argued that their tax-cutting agenda is not large by historical standards, arguing that their tax cuts are similar in spirit, and smaller in size, than the Kennedy and Reagan tax cuts. But those comparisons are naïve. (See Box: “These Are Not the Kennedy or Reagan Tax Cuts”)

The Administration also tries to argue that deficits don’t hurt the economy, because the empirical evidence on deficits and interest rates is mixed. However, the latest research—including papers by Federal Reserve Board economists—consistently finds that a one percent increase in the long-term federal deficit as a share of GDP raises interest rates by about 25 to 50 basis points. But the effect of deficits on today’s interest rates is not the essential economic problem with deficits. The true and unavoidable consequence of deficits is that they reduce national saving, reduce the resources available for productive investments, and hence reduce future economic growth.

**Jeopardizing Social Security and Medicare and Sticking the Bill to Our Children**

Tax cuts now mean even bigger tax increases or spending cuts later. The Bush tax cut agenda basically gambles away the income security of future generations, and for what? Current tax cuts to the rich, which Republicans claim will ultimately benefit everyone. Instead, those tax cuts will ultimately cost everyone.

Our country’s impending demographic challenge and corresponding fiscal pressures are a certainty. We were already faced with tough decisions ahead about how the retirement of the baby boomers would be made “affordable” to our government budget: either taxes will have to rise in the future, spending cut, or some combination of both. The Bush tax cut agenda is not responsible for that situation, but it surely and dramatically has made the tough problem even tougher. It makes the fiscal hole even deeper, and it unjustly pushes off most of the financial responsibility for the tax cuts and government programs we now enjoy; onto our children and grandchildren. We’re putting our tax cuts on a credit card that our kids will have to pay off.
To put the long-term revenue losses from the Bush agenda in perspective, the Center on Budget and Policy Priorities has calculated that the long-run cost of the Administration's enacted and proposed tax cuts is between 2.3 and 2.7 percent of GDP, or between $12.1 trillion and $14.2 trillion in present value over 75 years. This amounts to more than three times the projected 75-year actuarial shortfall in Social Security.

While avoiding these huge tax cuts would not eliminate the challenges our nation faces with the impending retirement of the baby boomers, it would provide us with the resources needed to effectively strengthen the Social Security and Medicare programs. In embracing the Administration's tax-cutting agenda, current policy makers choose to leave future generations to clean up the fiscal mess.
Republicans claim that the Bush tax cuts are smaller than the Reagan tax cuts of the 1980s, are comparable to the Kennedy-Johnson tax cuts, and will not reduce government revenue. These arguments are flawed. The reality is that Reagan increased taxes when it became clear that the budget outlook had deteriorated sharply, and Kennedy’s tax cut came at a time when tax rates were extremely high and deficits small. Bush, in contrast, started with a tax system with much lower rates and has kept proposing additional tax cuts that will lead to large budget deficits. A careful comparison of the Bush tax-cut agenda with the Kennedy and Reagan experiences only exposes the weaknesses in the current Administration’s position.

Kennedy cut taxes when the economic benefits were greater, while the economic costs were smaller. Before the Kennedy tax cut, the top marginal income tax rate was over 90 percent, and the tax cut reduced this to 70 percent. Today the top marginal tax rate is 39.6 percent. The potential efficiency gains from reducing very high marginal tax rates are much greater than the gains to be expected from lowering rates that are already low. Moreover, the potential cost to the economy because of the associated deficits was much smaller in the Kennedy era; when the Kennedy tax cut was enacted, the federal budget deficit was only $6 billion (much smaller than now, even as a share of GDP).

There are several lessons from the Reagan experience that the current Bush Administration has apparently chosen to ignore. The biggest lesson ignored was that deficits do matter. The budget deficits caused by the 1981 tax cut had an adverse effect on the economy. Despite having campaigned on a supply-side tax cut agenda, Ronald Reagan learned that the economic benefits of lower tax rates were outweighed by the costs of higher deficits. Reagan acted about a third of the 1981 cut with tax increases in 1982, 1983, and 1984. On net, Reagan cut taxes by about 2.1 percent of GDP, just slightly above official estimates of the Bush tax cut agenda (1.9 percent of GDP), but below more realistic estimates of the Bush agenda including some AMT reform, which would bring the Bush tax cuts up to between 2.3 and 2.7 percent of GDP.

The other lesson from the Reagan era was that the “supply-side” responses to tax cuts turned out to be disappointingly small. Instead, the largest economic effects came through the enlarged budget deficits and handicapped monetary policy. Economic research since then has demonstrated that the adverse effects on the economy associated with the 1981 tax cut and the resulting large budget deficits outweighed any supply-side responses.

Despite the 1982 tax increase, the deficit hole that the Reagan Administration got us into took nearly two decades to get out of. Now the current Bush Administration chooses to ignore the subsequent and complementary lesson from the Clinton era: that deficit reduction can be an actual positive change for the economy, even when it has to involve tax increases.

### Table 3

<table>
<thead>
<tr>
<th>Administration Tax Cuts and Social Security Deficit Over the Next 75 Years</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Present Value Over the Next 75 Years % of GDP</strong></td>
</tr>
<tr>
<td>-----------------</td>
</tr>
<tr>
<td>AMT tax cut if made permanent</td>
</tr>
<tr>
<td>Uniform capital gains proposal</td>
</tr>
<tr>
<td>Tax-exempt savings accounts</td>
</tr>
<tr>
<td>Other proposed tax cuts</td>
</tr>
<tr>
<td>Total, administration tax cuts</td>
</tr>
<tr>
<td>Social Security actuarial deficit</td>
</tr>
<tr>
<td>Medicare Hospital Insurance actuarial deficit</td>
</tr>
<tr>
<td>Combined Social Security and Medicare deficit</td>
</tr>
</tbody>
</table>

* Assumes level of GDP and interest rates projected by Social Security actuaries.


### Appendix Table A

**Conference Agreement on the Jobs and Growth Tax Relief Reconciliation Act of 2003:**

**Distribution of Income Tax Change by AGI Class, 2003**

<table>
<thead>
<tr>
<th>AGI Class (thousands of 2002 dollars)</th>
<th>Number of Tax Units</th>
<th>Percent Change in After-Tax Income</th>
<th>Percent of Total Income Tax Change</th>
<th>Average Tax Change ($)</th>
<th>Average Income Tax Rate</th>
<th>Current Law</th>
<th>Proposals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 10</td>
<td>32,078</td>
<td>23.7</td>
<td>1.7</td>
<td>-1.0</td>
<td>0.7</td>
<td>0.7</td>
<td>0.7</td>
</tr>
<tr>
<td>10-20</td>
<td>23,022</td>
<td>16.6</td>
<td>12.2</td>
<td>-1.3</td>
<td>-3.0</td>
<td>4.3</td>
<td>4.3</td>
</tr>
<tr>
<td>20-30</td>
<td>16,524</td>
<td>13.3</td>
<td>9.8</td>
<td>-1.2</td>
<td>3.5</td>
<td>2.8</td>
<td>2.8</td>
</tr>
<tr>
<td>30-40</td>
<td>12,433</td>
<td>9.7</td>
<td>6.6</td>
<td>-1.0</td>
<td>6.0</td>
<td>6.0</td>
<td>6.0</td>
</tr>
<tr>
<td>40-50</td>
<td>10,627</td>
<td>7.6</td>
<td>5.2</td>
<td>-1.1</td>
<td>8.6</td>
<td>7.6</td>
<td>7.6</td>
</tr>
<tr>
<td>50-75</td>
<td>8,179</td>
<td>12.0</td>
<td>3.9</td>
<td>12.8</td>
<td>9.0</td>
<td>8.8</td>
<td>8.8</td>
</tr>
<tr>
<td>75-100</td>
<td>6,518</td>
<td>8.8</td>
<td>2.1</td>
<td>15.4</td>
<td>12.6</td>
<td>10.3</td>
<td>10.3</td>
</tr>
<tr>
<td>100-300</td>
<td>9,190</td>
<td>6.6</td>
<td>2.2</td>
<td>22.2</td>
<td>-8.0</td>
<td>16.2</td>
<td>14.2</td>
</tr>
<tr>
<td>300-500</td>
<td>3,214</td>
<td>1.6</td>
<td>2.3</td>
<td>11.0</td>
<td>-5.0</td>
<td>23.2</td>
<td>21.5</td>
</tr>
<tr>
<td>500-1,000</td>
<td>859</td>
<td>0.3</td>
<td>2.5</td>
<td>6.3</td>
<td>-11.1</td>
<td>28.1</td>
<td>25.6</td>
</tr>
<tr>
<td>More than 1,000</td>
<td>164</td>
<td>0.1</td>
<td>4.4</td>
<td>17.9</td>
<td>-23.3</td>
<td>26.2</td>
<td>26.0</td>
</tr>
<tr>
<td>All</td>
<td>136,859</td>
<td>100.0</td>
<td>1.8</td>
<td>100.0</td>
<td>-715</td>
<td>12.3</td>
<td>11.8</td>
</tr>
</tbody>
</table>

*Less than 0.05 percent. **Less than $1 in absolute value.

(1) Calendar year. Baseline is current law. Includes the following provisions: increase child tax credit to $1,000; expand size of the 15 percent bracket to $7,660 for singles and $14,000 for married couples; expand 15 percent brackets for married couples to twice that for singles; increase standard deduction for married couples to twice that for singles; reduce top four tax rates to 25, 28, 33, and 35 percent; increase AMT exemption by $10,000 for married couples and $4,500 for others; reduce the tax rate on long-term capital gains to 15 percent (the rate for individuals in the 15 percent AMT bracket would be 5 percent); preferential rates would not apply to income that, under current law, is reported as dividends on tax returns but represents distributions of interest income from mutual funds; lower capital gains rate apply to qualifying assets sold on or after May 6, 2003.

(2) Tax units with negative AGI are excluded from the lowest income class but are included in the total.

(3) Includes both filing and non-filing units. Tax units that are dependents of other taxpayers are included in the analysis.

(4) After-tax income is AGI less individual income tax, net of refundable credits.

(5) Average income tax net of refundable credit, as a percentage of average AGI.

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 06L-1)

---

222
A REALITY CHECK ON “FAITH-BASED” REVENUE ESTIMATION
MAY 2003

In its March analysis, the Congressional Budget Office (CBO) found that the President’s budgetary proposals for fiscal year 2004 would add $2.7 trillion to the cumulative 2004-2013 budget deficit. Equally important, CBO poured cold water on the arguments of those who believe that a different method of budget estimation known as “dynamic”—or, among its most ardent advocates, “reality-based”—scoring would produce substantially smaller estimates of the budgetary cost of those policies.

This paper discusses the lessons to be drawn from CBO’s dynamic analysis of the President’s budgetary proposals and applies those lessons to the ongoing debate over those proposals. CBO’s analysis covers the whole set of tax and spending proposals in the President’s budget and does not analyze the pieces separately. This paper focuses on the centerpiece of those proposals, the President’s “Jobs and Growth Initiative,” which is intended to stimulate the economy by accelerating the tax cuts passed in 2001 and by largely excluding corporate dividends from taxation in the individual income tax.

The key conclusions of that study were the following:

- In the first year, the Democratic alternative would provide up to twice as large a boost to jobs and growth as the President’s plan would.

- Most of the impact of the President’s plan occurred after the economy was already back to full employment.

- The fiscal stimulus from the President’s plan in those years was more likely to put upward pressure on interest rates than it was to boost jobs and growth.
This study adds another conclusion:

- Any realistic positive dynamic effects on revenue are likely to be larger in the Democratic plan, because that plan boosts growth more in the short term without damaging growth in the long term.

**Lessons for the Dynamic Scoring Debate**

It is an article of faith among some tax-cut advocates that traditional methods of revenue estimation greatly overstate the budgetary cost of tax cuts, because those methods do not try to account for feedback effects on revenue from changes in the economy induced by the tax cuts. In this view, incorporating macroeconomic effects into the revenue estimation process would show much smaller budgetary impacts than the allegedly "static" methods currently used.

CBO's analysis provides not only a reality check on that view, but also strong support for the views of critics of dynamic scoring, who believe that it is neither feasible nor desirable to incorporate dynamic analysis into the normal revenue estimating process. The JEC Democratic staff draws the following lessons from the CBO analysis:

- **There is no uniquely appropriate model or framework for conducting dynamic analysis.** CBO used a variety of models that are representative of the range of tools available to economists to identify and estimate effects on macroeconomic performance and revenue. However, each of those models was acknowledged to have limitations that prevented it from capturing the full range of likely effects.

- **There is considerable disagreement and uncertainty about many of the key economic effects and policy assumptions that must be incorporated into this kind of analysis.** CBO had to make a number of judgments about key economic and policy variables. In some cases, the agency reported results based on alternative assumptions that bracketed the range of plausible values; in others, they split the difference between conflicting plausible assumptions, and in still others they made their best judgment based on the available evidence. These strategies are understandable, but they fail to reflect the full range of
uncertainty about critical assumptions that affect not just the magnitude, but even the direction of the effect.

- **Dynamic analysis is as likely to add to the estimated revenue loss from a tax cut as it is to lower it.** To the extent that tax cuts increase incentives to work, save, and invest, they increase output and revenue. But to the extent that they encourage private consumption at the expense of investment and reduce national saving by making the budget deficit larger, they hurt growth and revenues. CBO reports both positive and negative net outcomes, with the result depending “not only on how the private sector would respond to the proposals themselves, but also on how the proposals would influence what budgetary policies people might expect in the future.”

- **Dynamic analysis is unlikely to produce revenue estimates that are substantially different from those produced using current methods of revenue scoring.** Irrespective of whether they are positive or negative, the supply-side effects of tax cuts will most likely be too small to change standard revenue estimates much. CBO concludes that the net effect on economic output of the whole set of policies in the President’s budget “would probably be small.” As a result, the change in the estimated budgetary impact of the President’s policies “is unlikely to be dramatic.” In congressional testimony, CBO Director Douglas Holtz-Eakin said, “In our view, on balance, the conventional estimate is a very good indicator of the budgetary outlook even after including the macroeconomic effects.”

- **Tax cuts (and spending increases) can also have demand-side (business-cycle) effects in the near term, but those are temporary.** When the economy is in a slump, with excess unemployment, tax cuts or spending increases can provide stimulus that restores full employment more quickly. The resulting temporary spurt of growth will also boost revenues (though not by enough to offset fully the budgetary costs of the stimulus). However, once the economy is back to full employment, further fiscal stimulus is likely to be counteracted by a tightening of monetary policy, which raises interest rates, reduces investment, and hurts growth and revenues in the long run. CBO provides a separate analysis of such demand side
effects, and clearly distinguishes those from the supply-side effects that are more typically stressed by advocates of dynamic scoring.

Applying the Lessons – the Limits of Demand-Side Models

Among the models CBO used in its analysis were two macroeconometric forecasting models, the Macroeconomic Advisers (MA) and Global Insight (GI) models. The JEC Democratic staff also used two such models, including the MA model, to analyze the first-year effects of the Bush and Democratic stimulus proposals. However, we expressed a number of concerns about whether those models were appropriate for analyzing the longer-term effects of those proposals.

CBO’s analysis echoes those concerns. The agency points out that macroeconometric forecasting models are designed to estimate demand-side effects, not supply-side effects, and that estimates of demand-side effects become increasingly unreliable over longer periods of time. As a result, CBO reports results from the macroeconometric forecasting models for only five years; it relies on other models to estimate longer-term supply-side effects. Like the JEC Democratic staff study, CBO concludes that the demand-side effects of budgetary policy depend on how the Federal Reserve responds to that policy. In a recession, an expansionary fiscal policy (tax cuts or spending increases) probably would stimulate aggregate demand, because the Fed would be unlikely to raise interest rates to offset that stimulus. But, in a strong economy, the Fed would most likely raise interest rates rather than accommodate fiscal stimulus.

The earlier analysis by the JEC Democratic staff suggested that even five years might be too long a time horizon for identifying demand-side effects reliably. For example, the analysis of the President’s plan by his own Council of Economic Advisers (CEA) assumes that GDP would be raised a full percentage point above its baseline level by 2007, even though that baseline assumes the economy is back to full employment by then. It seems more likely, however, that the Fed would raise interest rates enough to keep aggregate demand from rising above the full employment baseline level. In that case, the net effect of continued fiscal stimulus would be to crowd out private investment and increase inflows of foreign capital (borrowing from abroad) that would have to be repaid out of future income.
This discussion illustrates why the earlier JEC Democratic staff study used macroeconometric models to compare the first-year demand stimulus of the President’s “Jobs and Growth Initiative” with a Democratic alternative but did not try to push those models beyond their limits to analyze longer-term supply-side effects. This is consistent with the first lesson to be drawn from CBO’s analysis: different models have different strengths and weaknesses, and no one model can produce a reliable dynamic analysis. It also illustrates the lesson that demand-side effects, which are temporary, should be distinguished from longer-term supply-side effects in evaluating the impact of tax cuts on growth and revenue. In light of these lessons, any dynamic analysis that relied exclusively on a demand-oriented macro-econometric forecasting model for effects beyond the first year or so is particularly ill-conceived.

For example, the Heritage Foundation has published a multi-year dynamic score of the President’s tax proposals based on the Global Insights (GI) model. The results are driven by implausible intermediate-run macroeconomic outcomes. In particular, Heritage assumes that the unemployment rate can be pushed below its baseline high-employment level and held there for the rest of the 10-year forecast window. In addition, foreign borrowing grows substantially each year. But, it is more likely that interest rates will rise and investment will be discouraged if the Federal Reserve becomes concerned that excessive demand stimulus will generate inflation and if foreign lenders become more cautious in the face of a mounting current account deficit.

The GI model used by Heritage also appears to be much more “friendly” to dynamic scoring than other models, including the MA model. For example, using the GI model, CBO estimates that dynamic effects reduce the budgetary impact of the President’s proposals by $231 billion in 2004-2008, largely because of temporary positive demand-side effects. In contrast, using the MA model, CBO estimates that dynamic effects add $75 billion to those deficits. The President’s Council of Economic Advisers finds positive short-run dynamic effects in the MA model, but, as already discussed, that analysis too assumes that output and jobs can be pushed beyond full employment levels without any response from the Fed.
Applying the Lessons – the Limits of Supply-Side Models

For its 10-year analysis of supply-side effects, CBO used three models. The first, which it calls the “textbook growth model,” is an expanded version of the very simple “Solow growth model” used in the earlier JEC Democratic staff study. However, that model is not forward-looking and assumes that people do not base current decisions on expectations about future policies. To incorporate expectations about future policies, CBO used two other models that are more sophisticated theoretically, but which make very strong assumptions about the extent to which people are fully rational and forward-looking in their economic behavior.

The use of sophisticated forward-looking models gives economists some insights into how supply-side effects come about and how sensitive they are to different assumptions about how people factor likely future policy actions into their economic decisions. But those insights come at a heavy price. The models are arcane and based on extreme assumptions about the rationality of economic decision-making. Moreover, the results derived from those models are difficult to describe and sometimes counterintuitive. For example, the most powerful positive supply-side effects arise in a model in which people are assumed to live forever (or regard the welfare of even their distant descendents to be as important as their own) and believe that deficits today will be financed by tax increases (or reductions in valuable spending) in the future. In contrast, if people think that the tax cuts will eventually be financed by eliminating wasteful government spending, the effect is reduced growth and revenue in the meantime.

CBO’s analysis of supply-side effects illustrates several of the lessons discussed above. First, several models are used, because no one model is fully satisfactory. Second, multiple results are reported for some models, based on different assumptions about a few important economic variables and future policy choices. However, the number of variants would have to be multiplied several times over to capture the full range of uncertainty about key economic variables and policy assumptions.

Third, there is no clear direction to the results. In four of the seven cases analyzed for the 2009-13 period, growth is weaker and the deficit larger when the macroeconomic feedback effects of the President’s policies are included; in the other three cases, those effects are positive.
Fourth, the size of the effects, whether positive or negative, is not large enough to change the fundamental conclusion of the traditional revenue estimates, which is that adopting the President’s policies would cause a significant deterioration in the budget balance. According to CBO, the estimated cumulative deficit from 2004 to 2008 varies between $1,242 billion and $1,042 billion when supply-side effects are included, compared with an estimated $1,164 billion under baseline assumptions. The estimated cumulative deficit from 2009 to 2013 varies between $942 billion and $335 billion when supply-side effects are included, compared with an estimated $656 billion under baseline assumptions. However, the lowest estimate comes from the most unrealistic model. And CBO does not report results beyond 2013, when some of the most negative effects occur in some models.

Finally, the models used to analyze supply-side results have nothing to say about any possible demand-side effects. However, as discussed earlier, the macroeconometric forecasting models that are better suited to providing year-by-year budgetary estimates are unreliable over the full budget horizon and are ill-suited to estimating supply-side effects.

Dynamic Effects in Competing Stimulus Packages

CBO’s analysis demonstrates quite decisively that dynamic scoring is not a practical tool for revenue estimation. Nevertheless, appeals to dynamic analysis are likely to arise in the debate over the President’s tax proposals in coming weeks. CBO’s analysis provides a useful framework for separating plausible from implausible claims.

The following discussion compares two proposals: the President’s original “Jobs and Growth Initiative” and a Democratic alternative. The President’s proposal consisted mainly of tax cuts estimated to cost a total of $726 billion over the 2003-13 period. The Democratic alternative, estimated to cost $110 billion over the same period, included both tax cuts and increased spending on unemployment insurance and relief to cash-starved state and local governments. Neither of these cost estimates includes dynamic feedback effects. Nor do they include the debt-service costs that would be incurred if the proposals were not paid for with other tax increases or spending cuts.
Demand-Side Effects

In today's economy, either of these proposals would have short-term demand-side effects, because the economy is currently in a slump, with excess unemployment and idle industrial capacity. However, as shown in the earlier JEC Democratic staff analysis, in the first year the Democratic alternative provides up to twice the boost to jobs and growth as the President's plan (See Charts 1 and 2). That extra short-term growth translates into a larger short-term demand-side revenue increase in the Democratic alternative. According to rough estimates by the JEC Democratic staff, the demand-side effect from hastening the economy's return to full employment would be $53 billion with the Democratic plan and $46 billion with the President's plan. Those effects would offset nearly half the cost of the Democratic proposal (as traditionally measured) but only about 6 percent of the cost of the President's plan.
As discussed earlier, the Federal Reserve is likely to raise interest rates if fiscal stimulus continues after excess unemployment and idle capacity have been eliminated. This consideration is unimportant for the Democratic proposal, which concentrates its effect in the first year when it is needed the most and does not entail subsequent costs (other than debt service). In contrast, the President’s proposal continues to stimulate aggregate demand long after excess unemployment and idle capacity have been eliminated. If the Fed tightens monetary policy in response, the resulting increase in interest rates would add to the cost of financing debt and hence to net interest outlays and the deficit.

The JEC Democratic staff has not made an estimate of those effects. Such an estimate would vary with specific assumptions about private saving behavior, international capital flows, expectations about future policy, and the vigor of the Fed’s response. As a rough rule of thumb, each 10 basis-point increase (0.1 percentage point) in interest rates would represent $4 billion per year of extra interest costs on a public debt of $4 trillion.

**Supply-Side Effects**

In the long run, tax cuts have a positive effect on growth and revenues when they encourage greater work effort, saving, and investment. They have a negative effect when they discourage those activities. As the CBO analysis shows, however, the magnitude of these effects is difficult to estimate empirically and the net effect could be positive or
negative. To be credible; a supply-side dynamic analysis should be
clear about the models and assumptions used to reach any conclusions
about how a tax cut would affect the economy and the budget.

The JEC Democratic staff comparison of the President's "Jobs and
Growth Initiative" and the Democratic alternative used a model related
to what CBO calls the "textbook growth model." We judged that
neither policy would have much direct effect on labor supply, saving,
or investment through changes in marginal tax rates. CBO, in contrast,
includes a net positive labor supply effect from reductions in marginal
tax rates. The dominant effect in both analyses, however, is the
negative impact of higher public debt on saving and capital formation.
CBO's assumptions about private saving behavior and international
capital flows result in a smaller "crowding out" of investment per
dollar of debt. However, CBO got a larger negative impact because it
estimated the impact of the full set of proposals in the President's
budget, not just the "Jobs and Growth Initiative."

Table 1 shows the JEC Democratic staff estimate of the increase in
public debt from 2003 to 2013 associated with the President's and
Democratic plans, respectively. The first line shows the standard
budgetary impact as estimated by conventional methods. In this
accounting, the President's plan is nearly seven times more expensive
than the Democratic alternative. Line 2 shows the demand-side effect
discussed above. Line 3 shows the net budgetary impact of these two
effects. Line 4 shows the extra debt service costs that are incurred
because the proposals are financed by debt rather than other tax
increases or spending cuts. Line 5 shows the total increase in debt,
including interest costs. That accumulation of debt drains national
saving and hurts growth in the long run. The Democratic plan, which
provides a substantially larger boost to jobs and growth in the first
year, also has just one-ninth the budget cost of the President's plan.
Thus, the drain on national saving is nine times larger in the
President's plan.
This increase in debt is the largest source of supply-side expense associated with the two plans. As described in the earlier JEC Democratic staff study, the drain on national saving from the debt generated by the President’s plan would reduce U.S. national income in 2013 by an estimated 0.4 to 0.6 percent. The costs associated with the Democratic plan are one-ninth as large and would have a correspondingly smaller effect.

The largest positive dynamic effects in this analysis come from stimulating demand in a weak economy. However, those effects are temporary and offset only a fraction of the direct budgetary costs of the stimulus policy. That fraction is larger in the Democratic alternative because there are no significant costs beyond the first year other than debt service. The President’s permanent debt-financed program has a smaller stimulative effect in the short run and leads to higher interest rates and a crowding out of investment in the longer run. For those permanent tax cuts to have a net positive impact on growth in the long run, they must generate positive supply-side incentive effects large enough to offset the drag on long-term growth from the reduction in national saving they produce. The available evidence suggests that debt-financed tax cuts will not meet this test.
Conclusion and Implications

CBO’s analysis of the potential macroeconomic effects of the President’s budgetary proposals helps clarify some important issues in the dynamic scoring debate. It identifies the main channels through which potential macroeconomic effects are likely to occur and it illustrates many of the difficulties that must be overcome to produce a credible dynamic analysis. It shows that macroeconometric models are useful for identifying short-term demand-side effects that might occur in an economy experiencing economic slack, but that those models are unreliable guides to longer-term supply-side effects. Finally, it shows that true supply-side effects are likely to be relatively small in magnitude and uncertain in direction. Revenue-neutral tax cuts that increase incentives to work, save, and invest may have small positive effects, but debt-financed tax changes probably have net negative effects.

This paper has applied the lessons to be drawn from CBO’s analysis to a comparison of the President’s “Jobs and Growth Initiative” and an alternative Democratic plan. Based on standard budget scoring methods, the President’s plan is nearly seven times as expensive as the Democratic alternative, yet it provides less stimulus to jobs and growth in the first year, when such stimulus is most needed and most likely to be effective. While the President’s plan may provide some positive incentives to work, save, and invest, those effects, if present, are unlikely to be large enough to offset the negative impact of the greater debt needed to finance those tax cuts.

Far from lowering the measured costs of the President’s plan, a dynamic analysis would most likely increase those costs. In particular, the extra debt service costs are much larger than the short-run demand-side effects on revenue. An earlier JEC Democratic staff analysis showed that the Democratic alternative delivered roughly twice the boost to jobs and growth in the first year as the President’s plan. The analysis in this paper shows that with “dynamic” effects included, it does so at one-ninth the cost.

Endnotes:

1 An Analysis of the President’s Budgetary Proposals for Fiscal Year 2004, March 2003

CBO's analysis of the President's budgetary proposals includes both spending and revenue proposals. In principle, the inclusion of spending might obscure the dynamic effects of tax cuts, and, at first blush, the proposals seem to be about evenly divided between taxes and spending. However, excluding net interest outlays, the proposals are two-thirds tax cuts and one-third spending increases. Therefore, about two-thirds of the net interest outlays arise from the tax cuts and should be treated as a component of the tax cuts in evaluating dynamic effects. Tax cuts dominate the President's proposals, and most of the lessons to be drawn from CBO's analysis of those proposals apply to the analysis of tax cuts more generally.

CBO (2003), p. 16

ibid.

ibid., p. 17


The Budget Resolution reduced the amount of the President's tax cut that would be protected by reconciliation to $550 billion, and an informal agreement by Senator Grassley reduced it further to $350 billion. To the extent that changes to the President's original proposal reduce its impact in the first year, there will be less positive job-creating stimulus; to the extent that changes reduce the outyear costs, there will be less harm to long-term growth from budget deficits and reduced national saving.

These estimates assume that full employment is restored more quickly than in the baseline but that output and employment are not pushed beyond their high-employment baseline levels for an extended period of time (see the Technical Appendix, which is available separately).