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**Economic and Financial Crises, Policy Responses,
Deficits and Debt, and Possible Actions**

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Economic and Financial Crises, Policy Responses, Deficits and Debt, and Possible Actions

by Allen Sinai*

After a long U.S. and global economic and financial boom characterized by commodity, real estate and financial asset price bubbles, imbalances and excesses, the U.S. economy has fallen into a pronounced recession—probably to be the longest and perhaps deepest since the 1930s. The global economy is in a substantial recession as well; also deep and probably long, likely the worst in modern times. Along with the U.S. and global recessions, now arguably an *economic crisis* in breadth, abruptness, and the potential for even worse; there is a *financial crisis*.

In the U.S., there has been a collapse in credit and in financial intermediation within and outside the financial system, an associated failure fallout of financial institutions and companies, and apparently with no other choices more involvement in the private sector by the federal government and Federal Reserve than any time in modern history.

As a result, the federal budget deficit and public debt, however measured, are soaring, in absolute levels and relative to nominal GDP, which is shrinking. The increases in deficits and debt, some cyclical, some structural, raise numerous questions about the ability of the United States to afford all the initiatives, including economic, queued up for action in the aftermath of years of neglect and whether there is a point at which the creditworthiness of the United States Government could lead to further financial and economic disarray and an even more diminished standard-of-living prospect for the country. The striking rises in federal budget deficits and government debt most certainly cannot be benign, nor ignored and, at some point, along with measures taken to revive the U.S. economy and stabilize the financial system, must be confronted in terms of actions designed to arrest and reverse the now most likely path of financial fragility for the U.S. Government.

Events and conditions, the data U.S. and worldwide, sudden and sharp declines in real economic activity, and substantial interventions by government and central banks suggest more than just the effects of a housing boom, bubble, subprime mortgage bust, and ordinary recession. The sweeping nature of the U.S. and global economic downturns, financial disarray, contractions and writedowns in the balance sheets of financial institutions, severe bear equity markets, instability of financial markets generally, massive losses of wealth, and now near-zero or very low short-term interest rates set by many central banks speak to the presence of broader and

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deeper negative cyclical processes than heretofore seen; perhaps to be compared with the 1930s for the U.S. and Japan in the 1990s.

What are the policy responses, macroeconomic specifically, in such a time of crises? What could be the macroeconomic effects on the U.S. economy of some policy alternatives—monetary and fiscal? What might be the macroeconomic and budgetary effects of any New Economic Recovery Program that might be proposed and legislated? What about the deficits and debt at the federal government level resulting from the crises and the policy actions to deal with them? What actions could be considered to mitigate the deficits and debt that will arise from government spending and tax cut stimulus?

In this testimony is presented the current state-of-play of the U.S. and global economies, with a gloomy assessment of the current situation, short- and longer-term, and considerable risks of something worse especially *if no major new policy actions are taken*. The testimony presents the potential effects for some macroeconomic policies through simulations with a large-scale macroeconometric model of the U.S. economy—the Sinai-Boston (SB) Model. It discusses the role of monetary policy, necessarily and typically in U.S. business cycles defining for dealing with downturns, but argues that this is not so currently. In a situation of inadequate aggregate demand and relatively impotent monetary policy, “Keynesian-like” fiscal stimulus, and not just increases in federal government spending, would seem to be indicated; however, causing increased federal budget deficits, large rises in U.S. Government debt, and heavy involvement of the federal government in the private sector as probable side effects.

The fiscal alternatives examined include a possible Obama Administration Economic Recovery Program, near \$750 billion of aggregate demand stimulus from large increases of federal government outlays and sizeable tax reductions. The deficits and debt implications on such a program also are presented.

Some summary perspectives—

1) *the monetary policy of low interest rates and now “American-style quantitative easing” should be continued and enhanced*, with the Federal Reserve in the financial and economic crises acting as lender-of-last-resort to the *private sector*, not just performing its more traditional role of supporting the economy as a lender-of-last-resort to banks and the credit channel. That channel is severed, with numerous financial intermediaries ranging from banks to investment banking/brokerage firms to insurance companies and the financial arms of nonfinancial corporations who have been performing the traditional functions of bank lending and investing no longer able or willing to do so. Moral hazard and potentially higher inflation longer-run do

present possible problems on such Fed actions, but the downside prospect on the economy and jobs and financial instability considerably outweigh these, at this time.

2) *a fiscal stimulus consisting of large increases in federal government outlays and reductions in taxes is needed to lift an extremely depressed and weak U.S. economy, but it must be noted that the side effects of such actions might later produce significant negative feedback effects. A big stimulus is not necessarily the best. The bigger the stimulus the less are the additional net gains, with larger stimulus programs raising inflation, long-term interest rates, and the dollar to diminish the effects. There are diminishing returns to larger program sizing.*

3) *between increased government outlays and tax reductions, a 50-50 mixture of the two is about optimal. Federal government purchases have a strong and sharp impact on the economy initially, with the purchases impact multiplier for the first year estimated in a range of 1.4 to 1.8, and can significantly increase employment in the government sector. But this stimulus is not lasting as feedback effects on interest rates, inflation, the dollar and stock adjustments operate to return the level of the economy to its original path within six or seven years. Tax reductions for individuals, permanent not temporary nor targeted tax credits, take longer to have an impact but produce a longer-lasting path of real GDP that exceeds what otherwise would have occurred and more broadly-based jobs increases. The savings out of the tax reductions are used to replenish and reliquify household balance sheets, initially slowing down the pace of spending but speeding the financial adjustments of households to a more normal state which then supports higher spending for a longer period of time.*

4) *a by-product for the longer-run from the current crises and the coming policies to combat it is record-high federal budget deficit/GDP and debt-to-GDP ratios, unprecedented in peacetime, and potentially a significant negative for the dollar, interest rates, the U.S. stock market, inflation, the economy and the U.S. standard-of-living. How much deficits, how high debt-to-GDP, and when the point of financial disarray and negative economic effects might occur is not knowable—but, for sure, someday it will.*

There is no easy way out of the current situation of financial and economic disarray nor any quick policy fix from any source that does not have significant potential negative side effects, challenges, and questions having to do with the aftermath.

State-of-Play—Worst Downturn Since the 1930s?

The U.S. economy is in at least a “Long-and-Deep” recession, centered now around a secular and intensely cyclical downturn in the growth of aggregate consumption and a significant upturn in personal saving.

This is a big deal since aggregate consumption has been as high as 71-1/2% of real GDP, is now down to 70%, and likely to keep declining toward the more normal but still quite large 67% ratio in-place for many past years. Residential construction, which led the U.S. downturn, now is only 3% of real GDP; it was about 5-1/2% three years ago. Years of aggressively strong consumer spending, borrowing on easy credit, and debt accumulation secured by rising values of real estate and equities seem to have come to an end and abruptly so.

All the major fundamentals surrounding the consumer are negative—

1) jobs and disposable income—huge jobs losses, 1.531 million in nonfarm payrolls over October-to-December 2008, a rapidly rising unemployment rate, and real disposable income up only 1.6% over the past year to November;

2) deteriorated household balance sheets—real household wealth down an estimated \$10 trillion over the past year and likely to decline another \$5 trillion to \$8 trillion this year;

3) consumer confidence—currently at deep recession levels regardless of the measure;

4) housing equity financing—no longer available to tap nor any more the aggressive lending practices that helped propel home prices and household wealth to levels generating large amounts of cashout financing, capital gains realizations, and the increased wealth that raised consumption and drove the personal savings rate negative;

5) a credit crunch—especially for weak credits but also strong ones, liquidity and credit restraint on spending as financial institutions and nonbank financial intermediaries cut back on loans and investments to preserve capital and investors withhold funds from the capital markets;

6) deteriorated household sector balance sheets—the worst household sector financial conditions since the early 1980s as measured by the DE Household Financial Conditions Index (Chart 1) and likely to worsen further.

No help is in sight any time soon for the consumer. Large declines in crude oil, gasoline prices and commodities prices from boom and bubble peaks are helping to increase real purchasing stimulus and do provide a bright spot. But the potential \$200 to \$300 billion of additional consumer spending that might be estimated from the \$100+ decline of crude oil prices in recent months will be more-than-offset by the negative effects of the \$10 trillion decline in household net worth (about \$600 billion of lost consumption over the next year at a DE-estimated propensity-to-consume of \$0.06 on a dollar of lost wealth) and the weakening of consumption associated with only a 1%-to-2% rise in real disposable income.

Consumers cannot get any more funding, anywhere, from any outside sources as was possible for much of the last decade. *There is no other choice but to save more out of income.*

Chart 1
The DE Household Financial Conditions Index*



Source: Decision Economics, Inc. (DE).

*High values indicate more negative household financial conditions; low values more positive financial conditions.

This is a Seismic Shift, a change in secular trend that suggests much less growth in real consumption for some time than the average 3-1/2% growth per annum over the past 45 years. In the current cyclical downturn, outright declines in consumption are occurring, the likes of which have not been seen post-W.W.II. *At about two-thirds of real GDP or more, the path of consumption conditions the path of real GDP.*

The depressed consumer spending has a number of negative implications.

First, it means continued weak demand for big-ticket items such as houses and autos, and other categories of discretionary spending, also consumer caution which will show up as bargain-hunting, and radiates out broadly to depress business sales and profits and the exports of non-U.S. countries.

Second, weakened actual and expected growth in business sales and profits are bringing cutbacks in production, inventories, employment, capital expenditures and entrepreneurial activity, as well as imports.

As businesses hurry to reduce costs, jobs losses have been accelerating—almost 2.6 million net lost jobs, on the nonfarm payroll basis, over 2008 and substantial increases in part-time employees and in discouraged workers. The unemployment rate jumped in 2008, rising from 5% in December 2007 to 7.2% this past December. Industrial production has declined sharply, especially in recent months, and is estimated to be down 6.7% over a year ago. The various regional and national Purchasing Managers' Survey Indexes of economic activity have reached new low levels. A downturn in business capital spending has begun, following, as is typical, the

recession in housing and weakness in consumption. The capital spending downcycle usually lasts a year-or-so.

Third, U.S. imports are rising more slowly and some have been declining since most relate to consumption and business outlays. But those imports are other countries' exports so declines in the exports of major export-driven economies such as China, Mexico, South Korea, Hong Kong, Japan, Canada, parts of the Eurozone, Russia, and the other oil-producing countries of the world are weakening those economies that have tight and extensive trade ties with each other, such as in Asia.

Although almost all countries except China are less exposed on exports to the United States as a percent of the total than previously, the huge declines in U.S. consumption and now in capital spending have levered down exports and trade around-the-world, contributing significantly to the global recession.¹ In turn, with lags, U.S. exports are reacting. Nominal exports are down for three consecutive months and real export growth is slowing.

Finally, the beleaguered consumer and deteriorated household sector finances suggest worsening consumer credit and additional problems for lenders, banks and the financial arms of companies that sell consumer products, e.g., GMAC and GE Credit, on potential credit losses.

Still ongoing is the downturn in housing. Excess supplies relative to demands continue to depress new and existing home sales, housing starts, homebuilding and residential real estate. Housing prices likely will keep falling as a result, taking down household wealth, consumer spending, and the asset values and balance sheets of those financial institutions that hold mortgage-related investments and debt.

Table 1 shows the main features of the U.S. economic forecast, a Baseline, *assuming no major new changes in macroeconomic policies* other than what is already embodied in law and in the current policy of the Federal Reserve. This will change since it is clear that the Obama Administration and Congress will propose and pass some sort of Economic Recovery Program. And, so will the Baseline, not really a forecast until the Obama Administration and Congressional fiscal stimulus take shape.

Without any significantly stimulative new macroeconomic policies, the U.S. economy is expected to suffer *at least* a "Long and Deep" recession lasting anywhere from 20 months to 27 or 28 months and the deepest decline in real GDP since 1947, on an annual basis, -2.1%. Even with a stimulus program, a result close to the Baseline, or worse, could occur.

¹ See data on country export exposures over selected time periods in Sinai (2007, pp. 300-303) or in the *DE Economic Studies Series #63*, pp. 18-19.

Table 1
Decision Economics, Inc. (DE) Baseline—“Long and Deep” Downturn*
(Qtrly. and Annual Averages Unless Otherwise Indicated)

| | Quarterly (As of January 2009) | | | | | Annual | | | |
|---|-----------------------------------|---------|---------|---------|---------|--------|--------|---------|---------|
| | 2008:4F | 2009:1F | 2009:2F | 2009:3F | 2009:4F | 2007A | 2008F | 2009F | 2010F |
| Economy | | | | | | | | | |
| Real GDP (% Chg.) | -4.9 | -4.7 | -2.1 | 1.5 | 1.9 | 2.0 | 1.2 | -2.1 | 1.9 |
| Consumption (% Chg.) | -2.7 | -2.6 | -1.2 | 1.4 | 1.9 | 2.8 | 0.3 | -1.5 | 2.1 |
| Business Fixed Investment (% Chg.) | -13.3 | -13.7 | -8.0 | -1.5 | 0.8 | 4.9 | 2.1 | -8.2 | 3.0 |
| Res. Construct. (\$'00 Bils.) | 332.9 | 304.9 | 296.7 | 293.5 | 295.7 | 453.8 | 359.8 | 297.7 | 317.0 |
| Net Exports (\$'00 Bils.) | -350.5 | -360.7 | -362.7 | -355.5 | -360.5 | -546.5 | -386.7 | -359.9 | -350.5 |
| Govt. | | | | | | | | | |
| Federal (% Chg.) | 0.2 | 2.7 | 2.4 | 2.9 | 3.0 | 1.8 | 5.5 | 3.8 | 2.4 |
| State and Local (% Chg.) | 0.4 | 0.8 | 1.1 | 1.5 | 1.1 | 2.3 | 1.3 | 1.0 | 1.3 |
| Personal Savings Rate (%) | 2.8 | 4.1 | 5.0 | 5.7 | 6.4 | 0.6 | 1.7 | 5.3 | 5.8 |
| Inflation and Unemployment | | | | | | | | | |
| Consumption Price Deflator (% Chg.) | -5.7 | -2.2 | 1.8 | 2.0 | 2.1 | 2.6 | 3.3 | -0.1 | 2.1 |
| Consumption Deflator Ex-Food & Energy (% Chg.) | 0.6 | 1.8 | 1.5 | 1.8 | 2.1 | 2.2 | 2.2 | 1.6 | 2.1 |
| Unemployment Rate (%) | 6.7 | 7.3 | 7.7 | 8.1 | 8.6 | 4.8 | 5.8 | 7.8 | 8.2 |
| Jobs | | | | | | | | | |
| Nonfarm Payroll (Mils.) (1) | -1.531 | -1.227 | -0.975 | -0.810 | 0.323 | 1.096 | -2.589 | -2.647 | 1.061 |
| Civilian (Mils.) (1) | -1.751 | -1.310 | -1.105 | -0.950 | 0.511 | 0.262 | -2.956 | -2.529 | 0.929 |
| Fed. Bdgt. Def./Surplus (Unified, Fiscal Yrs., \$ Bils.) | | | | | | | | | |
| | -- | -- | -- | -- | -- | -179.3 | -463.1 | -1408.2 | -1167.0 |
| Fed. Bdgt. Def./GDP (%) | | | | | | | | | |
| | -- | -- | -- | -- | -- | -1.3 | -3.2 | -9.8 | -7.8 |
| Debt-to-GDP (%) | | | | | | | | | |
| | 74.3 | 77.7 | 80.2 | 82.3 | 84.1 | 65.0 | 67.7 | 81.0 | 87.1 |
| Interest Rates (%) | | | | | | | | | |
| Federal Funds | 0.37 | 0.14 | 0.22 | 0.36 | 0.45 | 4.93 | 1.75 | 0.30 | 1.27 |
| 3 Mo. T-Bill | 0.27 | 0.07 | 0.21 | 0.31 | 0.40 | 4.46 | 1.36 | 0.25 | 1.33 |
| 10-Yr. U.S. Treas. | 3.22 | 2.19 | 2.28 | 2.35 | 2.52 | 4.63 | 3.82 | 2.34 | 3.46 |
| Corp. AAA-Equiv. | 3.69 | 2.62 | 2.79 | 2.95 | 3.09 | 5.86 | 4.26 | 2.88 | 4.15 |

*Source: Decision Economics, Inc. (DE). *These projections assume no new major policy changes.* The Baseline has current policies—monetary and fiscal, the latter as reflected in current law. The monetary assumption is “quantitative easing” during 2009 and small, gradual increases in the federal funds rate throughout 2010.

F-Forecast

A-Actual

(1) Qtr.-end to Qtr.-end for Quarters and December-over-December for Years.

The federal budget prospect, even without a new economic stimulus package, is daunting. The federal budget deficit is projected at -\$1.4 trillion in FY2009 or -9.8% of real GDP. The debt-to-GDP ratio is a high 81%. All these figures represent record-highs or near record-highs in U.S. peacetime. The federal budget deficit improves some in 2010 with a modest cyclical recovery, but remains at what previously would have been record-high levels. The debt-to-GDP ratio is 87.1% in 2010.

The adjustments in the financial, household and business sectors, those taking place globally, as well as a downsizing of the financial system, continuing asset deflation, a debt deflation, and deflationary spiral are potential negatives that could prove overwhelming. Also unknown is what the appetite for private sector borrowing will be even when lending begins to loosen up. Consumer and business pessimism and depressed expectations were major reasons why stimulus in the U.S. during the 1930s and Japan in the 1990s failed to produce a sustainable upturn.

Along with the U.S. economic downturn, a global recession is reality.

Table 2 shows some highlights of a Baseline for the global economy, where for many countries new government stimulus programs are being implemented or planned. The forecasts do not reflect the potential effects of fiscal stimulus programs in the non-U.S. countries.

Virtually every global region is characterized by recession of some sort, although in the case of China and India hard to calibrate given high positive trend rates of growth. The U.S., Japan, U.K., Eurozone, much of Europe, parts of Developing Asia, Developing (Eastern) Europe, Developing Latin America, Australia and New Zealand, and probably Russia and China are all in recession now or likely to be soon. *The sweep and breadth of the global downturn is a distinguishing characteristic of the current episode.*

Of 47 countries analyzed and forecasted by Decision Economics, Inc. (DE), 33 are estimated to be in, about to enter, or headed for recession, representing some 90% of global output. Global economic growth for the 47 countries is estimated at 2.2% in 2008 and -0.4% in 2009. This is down from a robust 3.8% in 2007 and 4% in 2006. The previously lowest growth rates for essentially this country aggregate were registered in 1980 (1.9%), 1981 (2.0%) and 1982 (0.8%). *The global economic downturn looks to be the worst perhaps ever!*

For the next three-to-five months, while in the center of the downturns, high-frequency economic indicators for the U.S. and global economies likely will provide quite negative readings as the worst part of this severe economic downturn is traversed.

How long for the U.S. recession? How deep?

Table 3 summarizes the record of length and depth for the post-W.W.II recessions.

Table 2
Global Economic View
Real Economic Growth (1)
(Percent Change)

| | 2007 | 2008** | 2009** | 2010** | | 2007 | 2008** | 2009** | 2010** |
|-----------------------------|------------|------------|-------------|-------------|-----------------------|-------------|------------|------------|------------|
| United States * | 2.8 | 2.0 | 1.2 | -1.9 | Europe | | | | |
| | | | | | Spain * | 3.7 | 1.0 | -2.3 | 1.0 |
| Canada * | 2.7 | 0.6 | -0.8 | 2.1 | Portugal * | 1.8 | 0.6 | -0.3 | 1.7 |
| | | | | | Netherlands * | 3.5 | 1.0 | -1.3 | 1.3 |
| United Kingdom * | 3.0 | 0.6 | -2.5 | 1.0 | Belgium * | 2.6 | 1.2 | -1.0 | 1.4 |
| | | | | | Austria * | 3.0 | 1.4 | 0.1 | 1.4 |
| Europe | 2.6 | 0.7 | -1.8 | 1.3 | Greece * | 4.0 | 3.0 | 1.5 | 1.7 |
| France * | 2.1 | 0.7 | -1.7 | 1.4 | Ireland * | 6.0 | -1.8 | -1.3 | 2.0 |
| Germany * | 2.6 | 1.0 | -2.5 | 1.3 | | | | | |
| Italy * | 1.4 | -0.7 | -2.0 | 1.1 | Scandinavia | 3.0 | 1.2 | 0.1 | 1.5 |
| Switzerland * | 3.3 | 1.8 | -0.6 | 1.3 | Denmark * | 2.0 | -0.7 | -1.2 | 1.5 |
| | | | | | Sweden * | 2.7 | 0.4 | -1.1 | 1.4 |
| Asia-Pacific | 2.7 | 0.3 | -1.9 | 1.3 | Norway * | 3.2 | 2.4 | 0.9 | 1.5 |
| Japan * | 2.4 | 0.0 | -2.3 | 1.1 | Finland * | 4.4 | 3.0 | 2.5 | 1.5 |
| Australia * | 4.2 | 1.6 | -0.2 | 2.0 | | | | | |
| New Zealand * | 3.0 | 0.2 | -0.4 | 1.8 | Eastern Europe | 5.2 | 3.8 | 1.6 | 3.3 |
| | | | | | Poland * | 6.7 | 4.9 | 2.7 | 3.6 |
| Newly Industrialized | | | | | Hungary * | 1.3 | 1.7 | -1.8 | 1.3 |
| Countries | 5.6 | 3.1 | -0.8 | 2.8 | Czech Republic * | 6.6 | 4.1 | 1.8 | 3.2 |
| Korea * | 5.0 | 4.1 | -0.9 | 3.1 | Turkey * | 4.6 | 3.5 | 1.5 | 3.5 |
| Taiwan | 5.7 | 1.3 | -1.5 | 2.1 | | | | | |
| Hong Kong | 6.3 | 2.5 | 1.4 | 1.9 | Russia | 8.1 | 7.1 | 3.9 | 5.2 |
| Singapore | 7.7 | 2.2 | -1.2 | 3.6 | | | | | |
| | | | | | Emerging Asia | 10.1 | 8.2 | 6.4 | 6.4 |
| Latin America | 5.2 | 4.3 | 1.8 | 3.2 | China | 11.8 | 9.0 | 7.6 | 7.0 |
| Argentina | 8.7 | 6.2 | 2.8 | 3.7 | India | 9.0 | 8.5 | 6.3 | 6.8 |
| Brazil | 5.4 | 5.3 | 2.9 | 4.3 | Indonesia | 6.3 | 5.9 | 3.5 | 4.0 |
| Mexico * | 3.3 | 2.0 | -0.5 | 1.5 | Malaysia | 6.3 | 5.5 | 1.7 | 3.9 |
| Venezuela | 8.4 | 5.7 | 3.2 | 3.5 | Philippines | 7.2 | 4.8 | 2.9 | 3.7 |
| Chile | 5.2 | 3.6 | 2.3 | 3.1 | Thailand | 4.9 | 4.5 | 2.7 | 3.7 |
| | | | | | | | | | |
| World | 3.8 | 2.2 | -0.4 | 2.5 | Middle East | 5.5 | 4.9 | 4.3 | 4.7 |
| | | | | | Israel | 5.4 | 3.4 | 3.7 | 4.0 |
| OECD | 2.6 | 1.0 | -1.6 | 1.9 | Egypt | 5.5 | 5.3 | 4.4 | 4.9 |
| | | | | | Jordan | 6.0 | 5.9 | 4.9 | 5.2 |
| EU | 2.8 | 0.8 | -1.7 | 1.3 | | | | | |
| Eurozone | 2.6 | 0.7 | -1.8 | 1.2 | South Africa | 5.1 | 4.8 | 1.9 | 3.0 |
| Asia-NICs, Emerging | 9.0 | 7.0 | 4.7 | 5.5 | | | | | |

(1) Real GDP

*OECD countries

**Forecast

Table 3
Postwar Recessions: How Long and How Deep?

| | Peak | Trough | Length (Mos.) | Peak-to-Trough Pct. Chg. in Real GDP |
|-----|-------------------------|---------------|--------------------------|---|
| 1. | Nov. 1948 | Oct. 1949 | 11 | -1.69 |
| 2. | Jul. 1953 | May 1954 | 10 | -2.65 |
| 3. | Aug. 1957 | Apr. 1958 | 8 | -3.18 |
| 4. | Apr. 1960 | Feb. 1961 | 10 | -0.54 |
| 5. | Dec. 1969 | Nov. 1970 | 11 | -0.17 |
| 6. | Nov. 1973 | Mar. 1975 | 16 | -3.10 |
| 7. | Jan. 1980 | Jul. 1980 | 6 | -2.18 |
| 8. | Jul. 1981 | Nov. 1982 | 16 | -2.63 |
| 9. | Jul. 1990 | Mar. 1991 | 8 | -1.26 |
| 10. | Mar. 2001 | Nov. 2001 | 8 | 0.35* |
| 11. | Dec. 2007 | ? | 20-to-27F | -3.10F |
| | Avg. Length/Depth (1) | | 10.4 | -1.71 |
| | Median Length/Depth (1) | | 10.0 | -1.94 |

*Two of three quarters negative, not consecutively so.

F-Forecast

(1) Not including estimated or forecasted current episode.

The current downturn is shaping up to be the longest since W.W.II for many reasons.

First, it is already in its 14th month, dated recently by the National Bureau of Economic Research (NBER). The criteria used relied mostly, and correctly, on monthly economic indicators, all of which have moved well below previous peaks despite positive growth in real GDP over the first two quarters of 2008. Until recently, the recession could be called mild on these indicators, but turned down sharply in late summer, intensified by the credit crunch and financial disarray.

Second, the recession is now consumer-driven and will stay this way because of numerous negative short-term and long-run fundamentals surrounding the consumer; most particularly, a liquidity- and credit-constrained consumer reflecting many years of excessive spending, reliance on credit and debt, overbuying of big-ticket and other items, and dissaving. The brunt of the consumer downturn is only now unfolding. A long period of adjustment would seem necessary to eliminate the imbalances reflected in Chart 1 above.

Third, the housing downturn, or bust, still has considerable time to run. Housing prices continue to decline on excess supply relative to shrinking demand. Failure fallout of home foreclosures and bankruptcies is holding up the supply of housing. The lack of liquidity and credit for home purchases in the face of declining housing values is taking down demand. Bootstrap equity financing from rising values of real estate is no longer possible. There is also the changing psychology of price expectations that will deter this particular discretionary

purchase. Similar considerations apply to motor vehicle sales, now down almost 50% from a year ago and probably to stay low for quite some time.

Fourth, the capital spending downturn has just begun, mainly in response to the weakened sales and profits of the housing and consumer downturns. Historically, a capital spending downcycle lasts about a year with amplitude considerably greater than the swings in overall consumer spending.

Then, there is developing weakness in U.S. exports off the global recession as the unusually severe global recession negatively affects U.S. trade.

Finally, although a massive easing of monetary policy has occurred and a large fiscal stimulus program can be expected, the lags in effects from the stimuli can be very long, especially if in the process credit is tight, asset deflation is occurring, and potentially a debt deflation.

As for the depth, the Baseline has a 3.1% decline in real GDP, peak-to-trough, about as deep as the previously deepest post-W.W.II recession of 1957-58, which was -3.2% peak-to-trough. In the recessions of 1973-75 and 1981-82, 16 months each in length and each the longest since the 1930s, peak-to-trough declines of -3.1% and -2.6% in real GDP were recorded, respectively.

However, real GDP might not be the best measure for the depth of a recession given the changing structure of the U.S. economy. The bust in housing, depression in the financial sector, consumption spending downturn, coming recession in capital spending, and losses of jobs may be more indicative of depth than the GDP summary measure, which tends to be resilient probably because of the very large services sector in the U.S. economy.²

Inflation and unemployment are behaving as might be expected, moving inversely to one another, sharply so recently, and are expected to continue this way with so much developing slack in product and labor markets. Much higher unemployment rates can be expected on so much economic weakness. Downward pressure on prices and wage compensation likely will bring sharp reductions in overall inflation rates.

Over the past year, the unemployment rate has risen from 5% to 7.2%, overall CPI-U inflation has dropped from a high of 5-1/2% in July, year-over-year, to an expected essentially flat reading in December. Ex-Food and Energy less of a decline has occurred, from 2.6% in

² An example is Health Care, which has been a booming sector in the U.S. economy and now accounts for a much greater proportion of GDP and of consumption spending than ever before. Medical Care outlays are nearly 16.7% of total consumption as against 14.3% for consumer spending on all durable goods. Given the nature of this sector, the demands of an aging population, a drive to insure all Americans and the increased size of health care in the economy, real GDP is supported despite the sizeable declines in economic indicators such as industrial production that used to depict well the overall economy.

August, year-over-year, to an estimated 1.8% in December, in the 1%-to-2% range that for most members of the Federal Reserve is viewed as price stability. Capacity utilization in the U.S. has declined from 81% a year ago to an estimated 75% in December.

Outright deflation has occurred in commodity prices, where another price bubble appears to have burst, in crude oil particularly, also on a near-term basis in the overall PPI and CPI-U. Whether the deflation lasts or evolves into a deflationary spiral and debt deflation still is to be determined.

Odds are that the massive easing of monetary policy by major central banks around-the-world and programs of fiscal stimulus being proposed and implemented will lift economies and aggregate demands sufficiently to prevent any sustained deflation in commodities, goods, or services prices. *But the risk of a deflation that would be more than transient has risen quite a lot in recent months, particularly on the bursting of a price bubble in crude oil and energy prices and its derivative effects.*

In the Baseline, jobs losses over the next year are projected at about 2.7 million on the nonfarm payroll basis and near 2.5 million on the Household Survey, or civilian basis. The resulting unemployment rate is near 8-3/4% by late Summer or early Autumn, representing not quite so large an increase as over the past year.

However, this rate of unemployment likely will understate joblessness, since the structural demographics of the labor force have changed. There is much less labor force growth than used to be the case. Labor force growth, the labor force participation rate and employment-population ratio will continue to decline, reflecting the aging population, retirements of the baby-boomer generation, a peaking-out of the female labor force participation rate and fewer potential workers in the 18-to-30 year old age cohort.

If labor force demographics were as in the 1970s, 1980s or 1990s, the unemployment rate probably would reach 10%-to-11%. Certainly, the total of the unemployed, those part-timers who would prefer to work full-time but are not, and discouraged workers will reach record-high levels.

Household financial conditions and business profits likely will be slow to improve as a result, suggesting that when economic recovery and expansion do return, there will be another “jobless” recovery similar to the ones in 1991-94 and 2002-04.

Tables 4 and 5 indicate two possible alternatives to the Baseline—a “Long and Severe” recession or a “V” recession and upturn.

Table 4
Decision Economics, Inc. Alternative Scenario—“Long and Severe” Downturn*

| | Quarterly (As of January 2009) | | | | | Annual | | | |
|---|-----------------------------------|---------|---------|---------|---------|--------|--------|---------|---------|
| | 2008:4F | 2009:1F | 2009:2F | 2009:3F | 2009:4F | 2007A | 2008E | 2009F | 2010F |
| Economy | | | | | | | | | |
| Real GDP (% Chg.) | -5.4 | -4.7 | -3.3 | -2.0 | -2.3 | 2.0 | 1.2 | -3.1 | -1.1 |
| Consumption (% Chg.) | -4.2 | -2.3 | -2.0 | -1.9 | -2.1 | 2.8 | 0.2 | -2.6 | -1.2 |
| Business Fixed Investment (% Chg.) | -10.7 | -14.1 | -14.0 | -12.9 | -11.8 | 4.9 | 2.4 | -10.6 | -8.3 |
| Govt. | | | | | | | | | |
| Federal (% Chg.) | 0.2 | 2.7 | 2.6 | 3.1 | 3.3 | 1.6 | 5.6 | 4.4 | 2.9 |
| Personal Savings Rate (%) | 2.3 | 4.2 | 5.4 | 6.2 | 7.7 | 0.6 | 1.6 | 5.7 | 9.0 |
| Inflation and Unemployment | | | | | | | | | |
| Consumption Price Deflator (% Chg.) | -5.6 | -2.5 | 1.4 | 1.6 | 1.9 | 2.6 | 3.1 | -0.2 | 1.9 |
| Unemployment Rate (%) | 6.9 | 7.5 | 8.4 | 9.4 | 9.7 | 4.6 | 5.8 | 8.8 | 10.0 |
| Fed. Bdgt. Def./Surplus (Unified, Fiscal Yrs., \$ Bils.) | | | | | | | | | |
| | -- | -- | -- | -- | -- | -179.3 | -546.7 | -1531.9 | -1391.3 |
| Fed. Bdgt. Def./GDP (%) | | | | | | | | | |
| | -- | -- | -- | -- | -- | -1.3 | -4.0 | -10.7 | -9.3 |
| Debt-to-GDP (%) | | | | | | | | | |
| | 74.3 | 76.9 | 82.0 | 85.1 | 90.1 | 65.0 | 70.7 | 83.5 | 92.4 |

*Source: Decision Economics, Inc. (DE). *No major new policy changes are assumed.* The monetary assumption is “quantitative easing” through 2009 and small, gradual increases in the federal funds rate through 2010.

F-Forecast

A-Actual

Table 5
Decision Economics, Inc. Alternative Scenario—“V”*

| | Quarterly (As of January 2009) | | | | | Annual | | | |
|---|-----------------------------------|---------|---------|---------|---------|--------|--------|---------|---------|
| | 2008:4F | 2009:1F | 2009:2F | 2009:3F | 2009:4F | 2007A | 2008E | 2009F | 2010F |
| Economy | | | | | | | | | |
| Real GDP (% Chg.) | -6.6 | -6.5 | 0.0 | 2.4 | 4.1 | 2.0 | 1.1 | -2.3 | 3.4 |
| Consumption (% Chg.) | -5.2 | -3.7 | 1.0 | 2.3 | 4.9 | 2.8 | 0.2 | -1.6 | 3.0 |
| Business Fixed Investment (% Chg.) | -14.5 | -21.4 | -1.4 | -1.1 | 3.5 | 4.9 | 2.2 | -8.5 | 4.6 |
| Govt. | | | | | | | | | |
| Federal (% Chg.) | 0.2 | 3.7 | 5.4 | 6.9 | 7.2 | 1.6 | 5.6 | 5.8 | 6.5 |
| Personal Savings Rate (%) | 2.7 | 5.0 | 4.5 | 5.2 | 5.1 | 0.6 | 1.6 | 4.5 | 4.8 |
| Inflation and Unemployment | | | | | | | | | |
| Consumption Price Deflator (% Chg.) | -5.8 | -2.9 | 2.5 | 2.7 | 2.8 | 2.6 | 3.3 | 1.5 | 2.4 |
| Unemployment Rate (%) | 6.9 | 8.0 | 8.3 | 8.4 | 8.1 | 4.6 | 5.8 | 8.4 | 7.4 |
| Fed. Bdgt. Def./Surplus (Unified, Fiscal Yrs., \$ Bils.) | | | | | | | | | |
| | -- | -- | -- | -- | -- | -179.3 | -550.3 | -1755.9 | -1598.6 |
| Fed. Bdgt. Def./GDP (%) | | | | | | | | | |
| | -- | -- | -- | -- | -- | -1.3 | -4.1 | -12.2 | -10.5 |
| Debt-to-GDP (%) | | | | | | | | | |
| | 74.3 | 82.7 | 87.0 | 93.2 | 94.5 | 65.0 | 68.6 | 89.3 | 97.5 |

*Source: Decision Economics, Inc. (DE). An Obama Economic Recovery Plan of approximately \$750 billion fiscal stimulus, 60% federal government outlays and 40% tax relief is assumed. The monetary assumption is “quantitative easing” through 2009 and small, gradual increases in the federal funds rate during 2010.

F-Forecast

A-Actual

The “Long and Severe” Alternative depicts a longer and deeper downturn than the Baseline, lasting through much of 2010. Peak-to-trough, real GDP declines nearly 4% and the unemployment rate reaches 10%.

Here, the forces of the asset price deflation in residential real estate, in the stock market, and for commodities overwhelm the monetary stimulus of low interest rates and quantitative easing. Financial institutions continue to hoard funds because of the capital required to support shrinking balance sheets. Credit losses are bigger. Consumers and businesses become even more pessimistic, refusing to borrow and spend even after the Federal Reserve lends more-and-more into the private sector.

The Fed “pushes-on-a-string” to an enlarged set of financial intermediaries who simply do not lend very much and also “pushes-on-a-string” on credit into housing, to consumers, and businesses who save and do not spend, or borrow, very much. The personal savings rate reaches over 9% by 2010 in this Scenario.

The other Alternative, a much brighter one, indicates a strong recovery and expansion sooner, beginning in Summer 2009.

Fiscal policy stimulus and the direct involvement of the Federal Reserve as a lender-of-last-resort to the *private sector*, not just banks or other financial intermediaries, bear fruit. Federal government spending is lifted much higher despite a winding down of defense spending associated with the withdrawal of U.S. troops from Iraq. Individual income tax reductions and credits are legislated early this year.

Financial institutions and the Federal Reserve aggressively lend, the credit crunch ends, the stock market picks up, housing bottoms-out, and housing prices stop falling. Business sector cutbacks are bigger and quicker and the excesses of the private sector are more quickly resolved. Monetary ease and fiscal stimulus in Japan, China, South Korea, Hong Kong, Australia, New Zealand, the Eurozone, U.K., Canada, and in the oil-producing countries, including Russia, limit the global downturn and its problem for U.S. exports.

Real GDP growth is sharply lower in the fourth and first quarters, down 6%-to-7%, annualized, and the unemployment rate quickly jumps to near 8%. But the very actions that cause this also take down business costs rapidly and, along with even lower crude oil and energy prices, help pick up business profits sooner.

Real GDP growth is down almost 2-1/2% in 2009 instead of the -2.1% in the Baseline but rebounds in the second half and to near 3-1/2% in 2010. With inflation low, the Federal Reserve

can gradually begin to reverse its quantitative easing and slowly raise the federal funds rate in 2010.

Either of these Alternative Scenarios is possible. The range of uncertainty surrounding 2009 and 2010 is extremely high—more dismal to brighter.

Macroeconomic Policy Choices

In the setting that exists, what macroeconomic policy actions are suggested? What is the role of monetary policy? What are the possibilities for fiscal policy stimulus—how much, what mix and dosage, and for how long? What might be the effects on the macroeconomy? What might be the economic and budgetary effects of a possible Obama Administration Economic Recovery Program?

Monetary Policy in Financial and Economic Crises—Lender of Last Resort to the Private Sector? Pluses and Minuses

The first line of defense in an economic downturn, of course, is monetary policy—actions by the Federal Reserve on interest rates and in the provision of reserves and liquidity to the banking system.

In normal circumstances, monetary policy is eased by lowering the key policy short-term interest rate, in the U.S. the federal funds rate, which reduces the costs-of-funds to banks and other financial intermediaries who then lend into housing, to the consumer, and businesses.

Funds availability is increased and, with lags, the combination of lower interest rates and increased availability of funds lifts housing, then consumption, business sales, then profits, and later business spending, production, inventories and employment. The stock and other financial markets improve, consumer spending picks up, and the economy recovers and expands. The U.S. demand for imports rises; other countries' economies improve and global expansion returns.

The present episode differs from the more normal paradigm in the imbalances and excesses that have evolved over a long period of time, booms and price bubbles that have burst for commodities, real estate and stocks, derivative effects on credit, debt, and the securities and firms tied to these, and a collapse in the financial intermediation process. Extremely leveraged debt financing of the expansion, aggressive and excessive risk-taking also have been present.

Just as the leveraged financing and balance sheet expansion produced outsized booms and bubbles in asset prices, credit, debt, in the financial sectors and countries fueled by the rising values of assets and balance sheets, so is the unwinding of them and associated collapse of credit, financial disarray, and restoration of balance sheet equilibria fueling asset price deflation and the curtailment of spending, lending, and borrowing.

Widespread and interactive booms and bubbles have led to a degree of financial instability and financial disarray not usually present, overwhelming the normal easing response of the Federal Reserve, late in coming, but which has become more timely and appropriately aggressive. The long and variable lags in the effects of easier monetary policy on the economy have been made moreso as the dynamics of the downturn, real and financial, and stock adjustments work themselves out, more of them this time. The Federal Reserve has made the appropriate diagnosis—extreme financial instability and a crippled system of credit—and is trying to preserve the credit channel in the economy by taking numerous ingenious and creative actions to support credit and to prevent the wholesale collapse of the banking and financial intermediary system such as occurred in the 1930s.

Open-ended purchases of securities and large injections of reserves into the banking system should be continued, keeping the federal funds rate near zero, U.S. Treasury and other short-term interest rates very low. A program of purchases of commercial paper indirectly from nonfinancial corporations has been a positive innovation.

Second, the funding of financial intermediaries, mostly commercial banks, through the various programs set up in recent months, should be maintained even if the recipients do not use the funds to lend. The financial institutions who receive the funds will act in their own self-interest, but over time eventually heal their balance sheets and loosen up credit within and outside the financial system.

Third, the Federal Reserve will soon use \$20 billion of funds from the federal government and the Troubled Asset Recovery Program (TARP) as equity to support \$200 billion of lending directly into the private sector—a definite positive step. This probably will not be sufficient and more federal government funding for this purpose would be appropriate.

Fourth, direct purchases of GSE debt to keep mortgage costs-of-financing down and purchases of FNMA and Freddie Mac mortgage-backed securities in the open market should be continued until the housing downturn and housing price declines have ceased.

Finally, the central bank should purchase U.S. Treasury securities across the Treasury yield curve, including long duration U.S. Treasury securities, the 10-year bond, in particular. Long-term mortgage rates will be held down as a consequence and the signs-of-life in mortgage refinancing that have appeared will probably spread and increase. Also, when the U.S. Treasury issues debt to finance the coming record-high deficits, the Federal Reserve can absorb these issues in case others do not.

Essentially, the U.S. central bank has become, and is becoming, a “bank” in the private sector, lending and investing where the current set of banks and financial intermediaries will not. There is hardly any other choice, although some do exist, except for the Federal Reserve to bypass a nonfunctioning credit channel in order to cushion the downturn in the U.S. economy, if not able to reverse it.

The pluses of this approach can already be seen in sharply lower long-term mortgage rates and increased refinancing of mortgages. Also, low short-term interest rates have reduced the cost-of-funds to banks and are increasing banks’ Net Interest Margin (NIM). And, the funds pumped into the banking system, which now include some previous investment banks and insurance companies, are helping to recapitalize the banking system in the face of eroding profits and collapsing balance sheets.

Negatives are moral hazard and the potential inflationary effects of what amounts to printing money and almost unlimited expansion of the Federal Reserve’s balance sheet.

Nevertheless, despite the actions taken, aggregate demand is so weak and the forces surrounding consumption and business fixed investment so negative, including expectations, likely to keep spending depressed, that the potential looks bleak for a significant upturn based on monetary policy alone. The unprecedented actions taken by the Federal Reserve, however, should eventually bear fruit, although by itself unlikely to stem the U.S. economic decline and propel the economy into recovery.

Fiscal policy stimulus will be needed.

A similar situation, but to a much lesser extent and not so complex as currently, existed in the aftermath of the 2000-2001 recession, where the collapse in technology spending and in the stock market overwhelmed whatever the Federal Reserve could do on interest rates and easy and ample availability of funds. Fiscal stimulus was used, mostly tax reductions, given the relative impotence of monetary policy in any reasonable timeframe and proved to be a major catalyst for U.S. economic recovery and in a derivative manner, the global economy.

The process that got us here suggests that monetary policy and recapitalization of financial institutions by the Federal Reserve and Treasury cannot necessarily prevent an even worse outcome from occurring. Inadequate aggregate demand is not the only source of the downturn. The collapse of credit, unwillingness of banks and financial institutions to lend within and outside the financial system, the effects on U.S. and global economies, asset deflation and perhaps debt deflation indicate that monetary policy could stay impotent or take too long for its effects to appear.

Fiscal stimulus, Keynesian-like, is indicated, with deficit-financed spending and tax reductions supported by easy monetary policy until the U.S. economy is up-and-running in a sustained way and the financial system and risk-taking are restored to more normal, but not excessive, levels.

Fiscal Policy—Some General Comments

Fiscal policy as a stabilization tool has undergone considerable shifts in attention and use over the decades, ranging from a standard tool for stabilizing business cycles in the 1960s and 1970s to a determinant only of the ultimate potential growth and potential level of activity for the economy afterwards.

Part of the change in viewpoint on fiscal policy has to do with its lack of usefulness in conditions unfavorable to its use, for example the hyperinflation circumstances of the late 1960s, 1970s and early 1980s. Also, there are issues of timing and whether fiscal policy stimulus, or restraint, is countercyclical or procyclical once implemented, given recognition lags, gestation lags, political lags, and lags in economic effects. These, in particular, pushed fiscal policy, other than automatic stabilizers, to the backburner for many years. Monetary policy became ascendant and the first line of defense in dealing with cyclical ups-and-downs.

In this last decade, fiscal policy has taken on renewed importance in part because of situations where monetary policy has been overwhelmed by collapses in spending, e.g., a technology bust and stock market price bubble bursting in 2000-02, and currently.

When the diagnosis is a collapse from the demand-side or in the current circumstances a 1930s-like asset price deflation and banking system problem, potentially a debt deflation, and inadequate private sector aggregate demand, then the low interest rates and availability of credit from easy monetary policy become much less potent and fiscal policy potentially more useful as a policy instrument for what ails the economy.

Such is the case now where for over a year easier monetary policy and lower short-term interest rates have failed to stem the U.S. and global downturns; indeed, these have steepened and intensified even as monetary policies everywhere, especially recently, have gotten aggressively easier.

Policy medicine economics, just as medicine in health care, needs to be tailored to the diagnosis of the causes and compared with possible similar episodes, if relevant, much as other illnesses and pathologies for patients are used to help medical doctors prescribe appropriate medicine.

Accommodative and easy financial conditions are a necessary ingredient of any treatment if the risks to the economy far outweigh the risks to inflation over some time horizon, as now. So monetary policy should be kept easy and accommodative as a backdrop to fiscal stimulus, especially the more the slack in product and labor markets.

One issue is the size of a fiscal stimulus. This is difficult since the U.S. economy is much larger now than used to be the case. Thus, the size, in absolute terms, must be higher.

Second, there may be offsetting negative dynamics operating in the macroeconomy to delay or even more than offset whatever fiscal stimulus is implemented. This needs to be accounted for.

Third, even with accommodative monetary policy, the side effects of fiscal stimulus can prove self-defeating, or at least limiting, through negative feedback effects on the positive stimulus of the fiscal action.

For example, fiscal stimulus by definition will initially create higher federal budget deficits and, if permanent, imply permanently higher structural budget deficits. Expectations of future deficits and the financing associated with them can affect the current prices and yields on U.S. Treasury and other securities given the forward discounting that goes on in fixed income markets. This is similarly so for exchange rates. The combination of higher long-term interest rates and perhaps a lower dollar from expected increases in the deficit may feed back negatively on financial markets in the present time and limit the stimulus to the economy of the fiscal action. Higher prices or higher inflation also can be expected and with higher interest rates will reduce the real purchasing power that would occur if there were no inflationary or interest rate feedback.

One positive by-product is the induced gains in tax receipts from all sources that occur when fiscal stimulus acts to raise economic activity, reducing ex-post the net ex-ante budgetary cost of the fiscal action, although rarely eliminating it.

Of course, other policies can be used and mixed with the fiscal stimulus—monetary, regulatory and supervisory, financial markets oriented, or institutional—to achieve desired objectives. There are also distributional effects of fiscal policy and shifts in the macroeconomic policy mix that can affect the microeconomics of the economy and perhaps help in achieving certain social objectives, for example, a reduction of inequality if it is so desired.

But proposals on fiscal stimulus—size, dosage, its legislation and interaction with other policies—remain a complicated and difficult task, especially given the complex dynamics of the

economy in a globalized context and the imprecision of the “science” of policymaking in a stress situation.

Fiscal Policy Alternatives—Size, Permanent vs. Temporary, Dosage, Short- and Long-Term Effects

For fiscal policy, the range of possibilities includes federal government purchases, defense or nondefense, or both, federal government transfer payments perhaps in the form of higher unemployment benefits and support for health care insurance payments of low-income families, aid to states and localities, and programs to support housing. The range of tax policy possibilities includes temporary reductions in personal income taxes, a permanent tax cut for individuals, tax credits for specific purposes, a reduction in the corporate profits tax rate, a reduction in the social security payroll tax, and a reduction rather than a hike in capital gains taxation. These types of fiscal stimulus could be used individually, or together, with size, mix, and dosage to be determined.

Three issues for fiscal policy are the total size of a stimulus package, its mix and dosage, and whether the measure should be permanent or temporary. This is examined in simulations with a large-scale macroeconomic model of the U.S. economy—the Sinai-Boston (SB) Model.³

All simulations assume accommodative monetary policy, that is an unchanged federal funds rate compared with the Baseline. The Federal Reserve injects sufficient nonborrowed reserves to maintain the Baseline federal funds rate.

These simulations show longer-term (out to 10 years) results under assumptions of no other exogenous interventions of policy, changes from the paths of the exogenous variables set, and under the assumption of an approximate maintained structure of the economy.

The SB Model is an open economy model with flexible exchange rates and interactions from the U.S. economy to major foreign economies then back to the U.S. through trade, exchange rates, and interest rates. The particular situation that exists now where financial instability, financial crises, and financial disarray characterize a more open global economy with generally flexible exchange rates has not been fully analyzed analytically in the literature, nor otherwise.

³ The results of macroeconomic model simulations should properly be noted as approximate, derived from a stochastic dynamic large-scale macroeconomic model. As such, a wide distribution of outcomes is possible. Any given result from econometric model simulation is only one of those outcomes, presumably near the center of the distribution of the probability distribution of all possible outcomes, but not necessarily so. Thus, ranges should be thought of rather than precise point estimates, with any particular episode, or simulation, a single outcome in the range and not necessarily precise in its potential accuracy. Also, simulations of econometric models are based on a model structure estimated on history so that any change in structure in the recent past, or future, not captured in the sample history of the econometric model can make the results less precise, less valid, or even invalid.

But given the elaborated framework of the Model for the financial system and its interactions with the real economy and vice-versa, it is perhaps as well-equipped as any to assess the financial effects on the economy from the changes in fiscal policy.

In Chart 2, the responses of the economy to \$100 billion and \$500 billion increases of federal government spending are shown in an attempt to assess how much is gained on a bigger stimulus package compared with a smaller one. There is a similar assessment on \$100 billion and \$500 billion permanent income tax reductions.

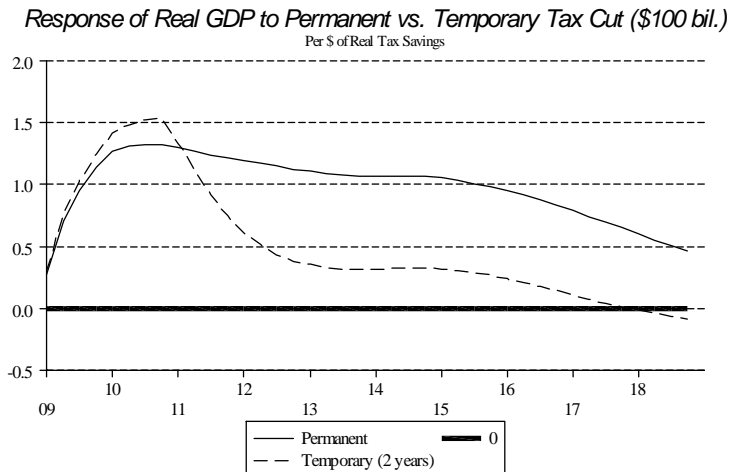
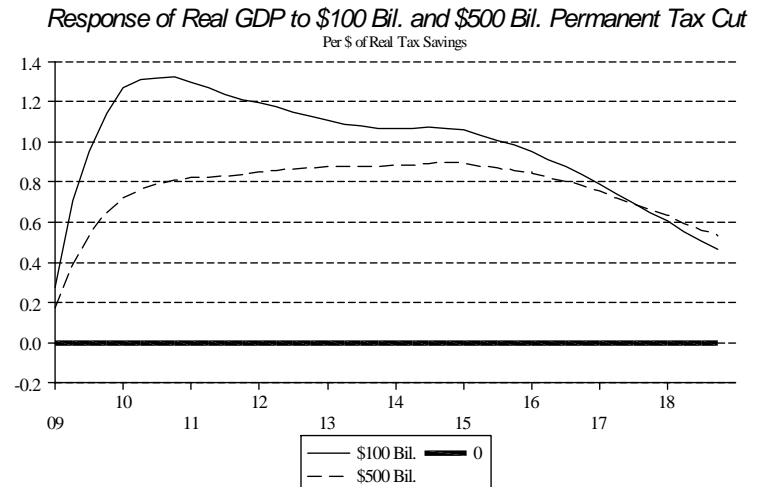
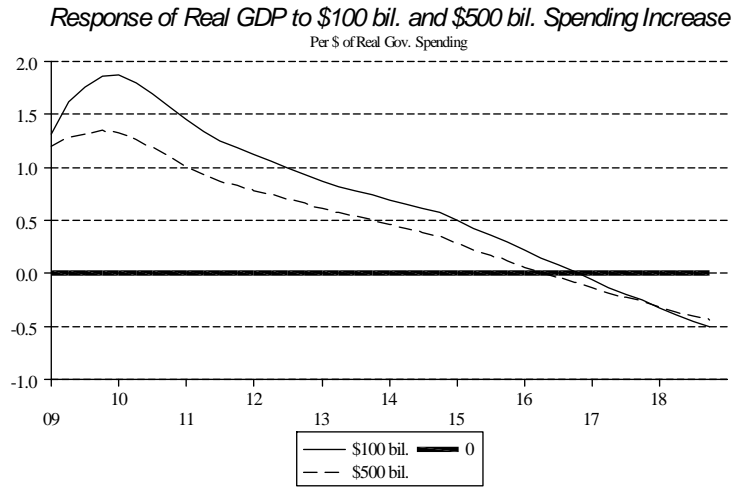
Both show significant multiplier effects but the five-fold higher spending increase and five-fold increase in a permanent personal income tax reduction do not produce similar proportionate increases in economic growth and activity. Indeed, the gains from the additional stimulus are not much greater even in the near-term, certainly not in the longer-term.

The implication is that serious thought must be given to whether big doses of fiscal stimulus should be used or whether the same total amount should be spread over time. The simulation results do show more gain per unit size for permanent tax cuts than for federal government spending increases.

The third subchart in Chart 2 shows the response of real GDP to \$100 billion permanent and temporary tax reductions. Here, the temporary tax reduction multiplier is somewhat greater earlier, reaching a peak of 1.5 in the second year but fading quickly thereafter. The permanent individual income tax cut has a similar time pattern of response but sustains a positive real GDP compared with the Baseline throughout the 10-year simulation interval.

Generally, permanent changes in fiscal policy will provide longer-lasting effects on the economy than temporary ones, although budgetary considerations may argue for temporary rather than permanent fiscal stimulus, depending on the circumstances. In any case, once debt is added to the accumulated stock, it is not removed because the fiscal stimulus was temporary. Further accumulation is limited, because new government debt financing does not occur. But, with interest payments on the greater outstanding debt, the cumulated stock of debt grows, and if GDP does not rise faster than the debt from the stimulus or for other reasons, the debt-to-GDP ratio will rise.

Chart 2
Size and Permanent Vs. Temporary Issues*
(Relative to Baseline (Zero))



* Simulation of the SB Model of the U.S. Economy. Federal Reserve policy unchanged; federal funds rate held at Baseline.

Fiscal Policy Alternatives—Effects of Government Outlays and Tax Measures

Charts 3 to 4 show the effects on real GDP, price inflation (overall and “Core”), the unemployment rate, nonfarm and civilian employment of hypothetical \$100 billion increases in various types of government outlays. Tables 6 and 7 show the effects of the various types of government outlay stimulus on the unified federal budget deficit, outlays and tax receipts, and in some detail. Changes in the federal budget deficit relative to GDP, the deficit/GDP ratio, in gross public debt, and in debt-to-GDP are indicated.

The Charts have subcharts that show 1) the “multipliers” for each of the fiscal alternatives, 2) real economic growth compared with the Baseline, 3) inflation, 4) the unemployment rate relative to the Baseline, 5) jobs created on the nonfarm payroll and 6) civilian bases.

Virtually all the fiscal stimulus programs raise the deficit-to-GDP ratio, with increases in the budget deficit relative to GDP exceeding early year rises of GDP. But revenue feedback from all sources of taxes as a result of fiscal stimulus reduces the ex-post deficits, sometimes quite considerably compared with those ex-ante. Debt-to-GDP ratios generally rise throughout, however, made even higher by increases of longer-term interest rates from changes in expected future deficits and U.S. Government debt accumulation.⁴

In Chart 3 is seen the relatively quick and sharp impact of federal government purchases in raising real GDP. The government purchases multiplier ranges between 1.4 and 1.8 over the first two years of the simulation, sizeable effects, then tails off, although still relatively, high before returning to Baseline levels in 2017.

Growth in real GDP is quite strong relative to the Baseline in the first year, but quickly falls back to the Baseline path in 2010. The unemployment rate drops quickly and sharply from strong hiring by the federal government, falling almost 0.8 percentage points below the Baseline, staying lower for quite some time given permanently higher employment in the federal government sector and the rising portion of the economy in federal government activity. The SB Model disaggregates nonfarm payroll employment into six subsectors so can differentiate the employment effects of the various programs between the public and private sectors.

Inflation, as measured by the Consumption Price Deflator-Overall and Ex-Food and Energy (Core), rises only by 0.2 to 0.3 percentage points compared with the Baseline. Jobs creation, on the nonfarm payroll basis, is strong, totaling 2-1/2 to 3 million over the first two years of the

⁴ Model-consistent expectations of future real federal budget deficits per capita are iterated in the Model with the long-term U.S. Treasury 10-year rate and AAA-Corporate Equivalent yield for the current period. Changes in the volume of gross public debt affect the three-month Treasury bill rate, other related short-term securities yields, and through arbitrage or term structure effects long-term interest rates as well.

Chart 3 Federal Government Purchases Permanently Higher by \$100 Billion* (Changes Relative to Baseline)

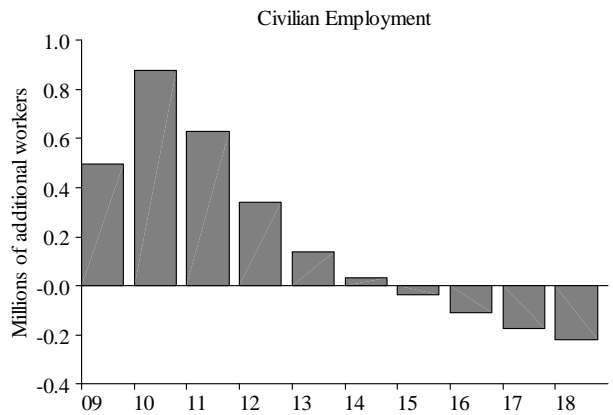
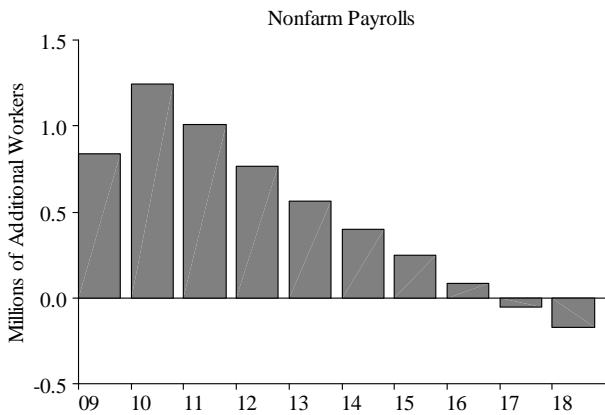
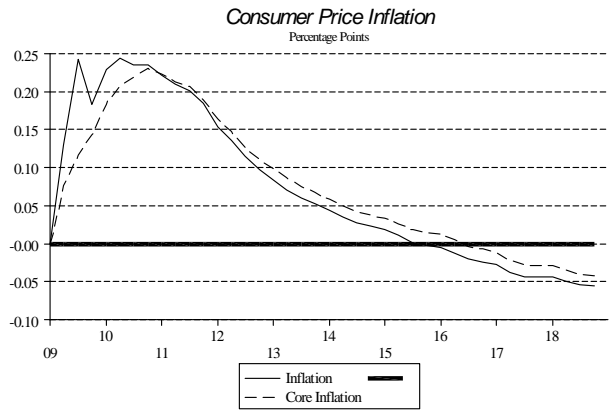
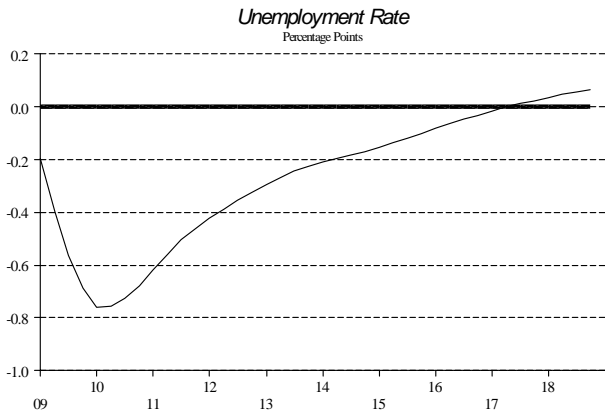
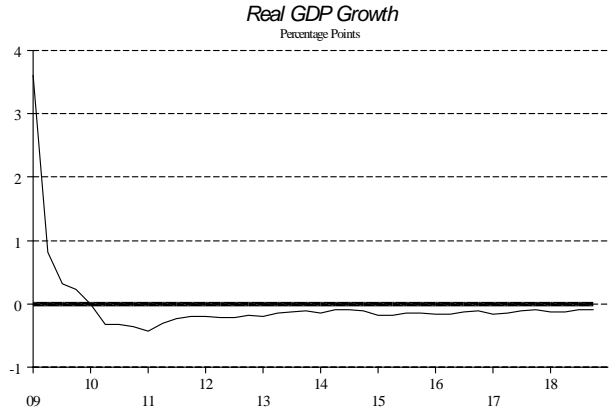
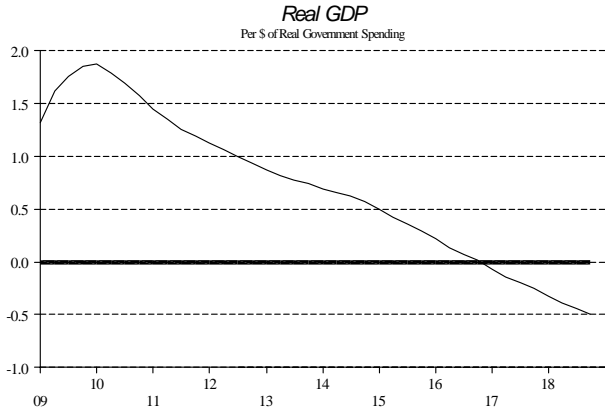


Table 6
Budgetary Effects of Fiscal Policy Stimulus:
\$100 Billion Permanent Increase of Government Spending
(Diffs. From Baseline Unless Otherwise Indicated)

| | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Unified Federal Budget Deficit/Surplus (-/+) (\$ Bils.) | -47.5 | -22.4 | -30.2 | -52.6 | -71.8 | -87.6 | -102.2 | -120.9 | -142.7 | -164.8 |
| Tax Receipts | 18.6 | 36.1 | 39.4 | 40.9 | 41.2 | 40.6 | 39.5 | 36.4 | 32.6 | 28.6 |
| Corporate | 5.4 | 8.5 | 6.5 | 5.1 | 4.2 | 3.8 | 3.0 | 1.9 | 0.8 | 0.0 |
| Personal | 6.3 | 14.7 | 18.4 | 20.5 | 21.2 | 20.9 | 20.6 | 19.6 | 18.1 | 16.3 |
| Ordinary Income | 6.1 | 12.4 | 15.4 | 17.9 | 19.0 | 19.2 | 19.4 | 19.0 | 18.3 | 17.1 |
| Capital Gains | 0.1 | 2.3 | 3.0 | 2.7 | 2.2 | 1.7 | 1.2 | 0.6 | -0.1 | -0.7 |
| Social Insurance | 5.8 | 11.4 | 12.8 | 13.6 | 14.0 | 14.2 | 14.1 | 13.3 | 12.1 | 10.8 |
| Excise | 1.1 | 1.5 | 1.6 | 1.7 | 1.8 | 1.8 | 1.8 | 1.7 | 1.5 | 1.4 |
| Outlays | 73.5 | 55.7 | 75.9 | 99.0 | 117.5 | 132.1 | 146.0 | 162.8 | 181.0 | 198.9 |
| Federal Purchases | 86.8 | 86.8 | 86.8 | 86.8 | 86.8 | 86.8 | 86.8 | 86.8 | 86.8 | 86.8 |
| Transfers-to-Persons | -14.7 | -35.1 | -17.8 | 1.8 | 16.1 | 26.3 | 34.9 | 44.8 | 54.3 | 61.9 |
| Grants-in-Aid | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Net Interest | 1.5 | 4.0 | 7.0 | 10.4 | 14.6 | 19.0 | 24.4 | 31.2 | 39.8 | 50.2 |
| Gross Public Debt (\$ Bils. Diff.) | 70.4 | 123.3 | 179.9 | 277.2 | 409.9 | 573.2 | 764.1 | 987.2 | 1247.8 | 1546.5 |
| Deficit/GDP (Pct. Pts.) | -0.2 | -0.1 | -0.1 | -0.3 | -0.3 | -0.4 | -0.4 | -0.5 | -0.6 | -0.7 |
| Debt/GDP (Pct. Pts.) | -0.4 | -0.4 | -0.1 | 0.5 | 1.1 | 1.9 | 2.7 | 3.7 | 4.8 | 5.9 |

Source: Decision Economics, Inc. (DE). Simulation of the SB Model of the U.S. Economy. Federal Reserve policy unchanged; federal funds rate held at Baseline.

spending increase. The discrepancy between the increases in nonfarm payrolls and of civilian, or Household Survey, employment reflects the count in nonfarm payrolls of jobs rather than persons employed.

In Chart 4, a permanent \$100 billion increase in federal government transfer payments, increasing and extending unemployment benefits, is examined. Transfers do not directly impact real GDP as do federal government purchases but work to raise the level of economic activity and the rate of economic growth through the expenditures of the recipients, in the Model acting more like a tax reduction than an increase in government spending.

Here, transfers are seen to have a slower, but significant multiplier effect on real GDP that lasts through the simulation interval. Real economic growth is higher, longer, than with federal government purchases, but the unemployment rate does not decline as much. Nonfarm payroll jobs increase less robustly than for an equivalent \$100 billion increase in federal government purchases but the Household Survey employment figures are stronger. This reflects the more widespread breadth of the stimulus as it works through consumer spending to produce broader effects on employment, although not so strong as federal government purchases where increases in federal government employment are greater.⁵

The budgetary effects of federal government purchases versus transfers to individuals are reflected in Tables 6 and 7, although the increases in the deficit/GDP and debt/GDP ratios are similar. It is the mix of outlays that show a considerable difference.

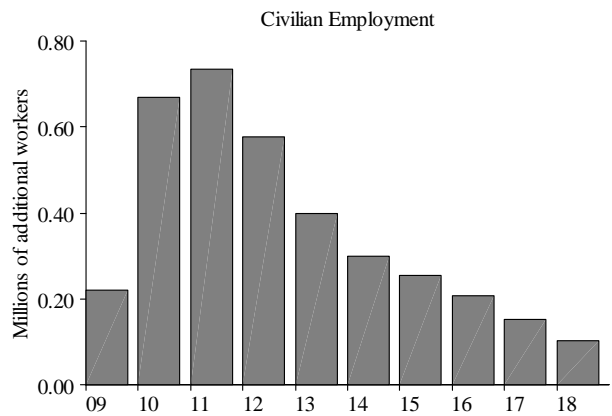
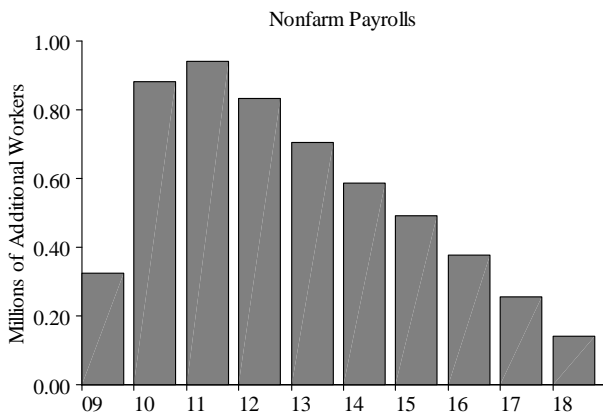
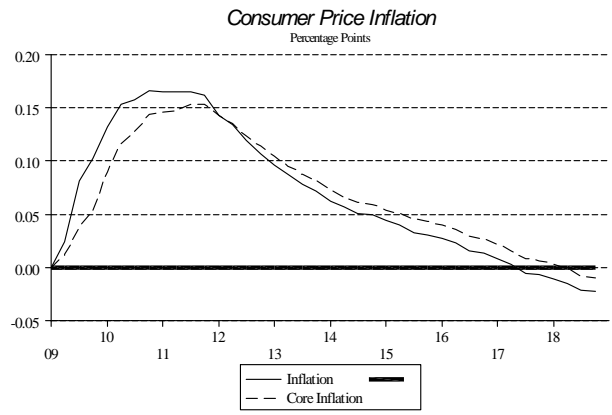
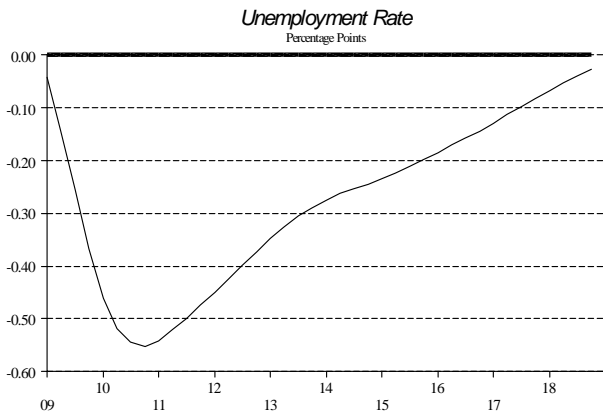
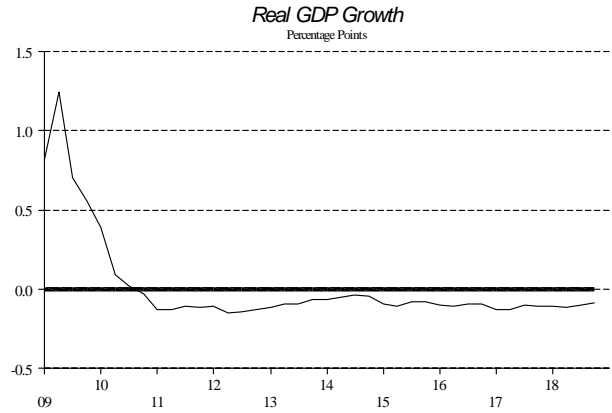
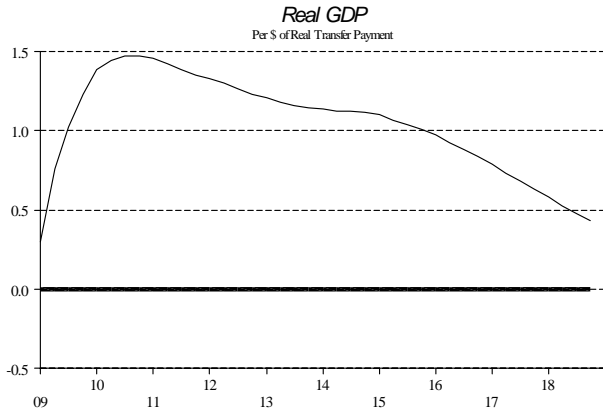
In Chart 6 and Table 8 are shown the results from a permanent \$100 billion reduction in individual income taxes. The tax multipliers and effects on real GDP, inflation and unemployment, and jobs, both nonfarm and civilian, are provided relative to Baseline.

The increases in real GDP from tax reductions take longer, because the funds transferred from the federal government to individuals work through household spending, which is delayed. The increases in disposable income that occur are not immediately factored in as permanent on the permanent income hypothesis that is embodied in the Model. There is also about a one-year lag with respect to changes in household wealth. Short-run propensities-to-consume are higher for cashout financing and capital gains realizations but these do not change much in the shorter-term on these types of policies, except for the elimination of the individual capital gains tax.

There is a financial side to the tax reduction for individuals such that the funds not spent are “saved” and show up in household finances and household balance sheets, improving household

⁵ In the SB Model, nonfarm payroll employment is modeled as the aggregate of a number of subsectors including separately federal government, various categories of services, manufacturing, and retail trade.

Chart 4
Permanent \$100 Billion Increase in Federal Government Transfer Payments*
(Changes Relative to Baseline)



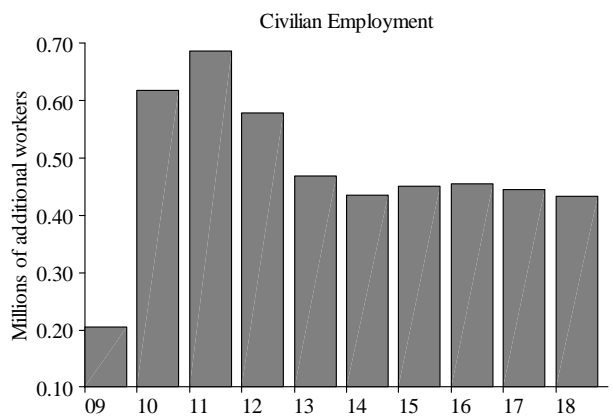
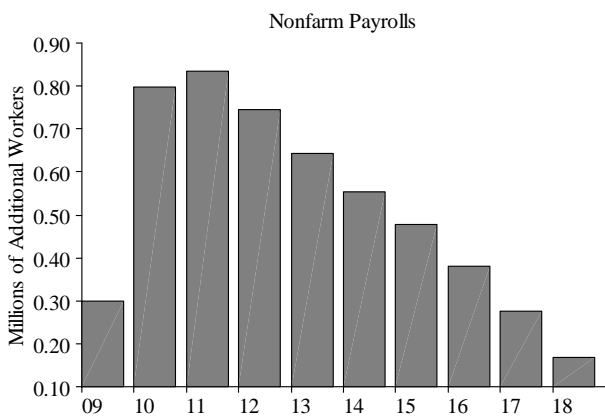
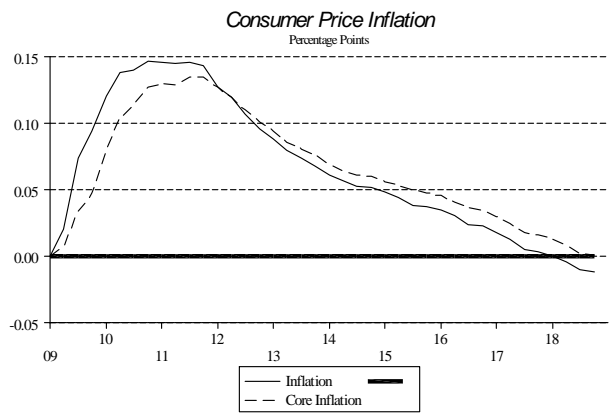
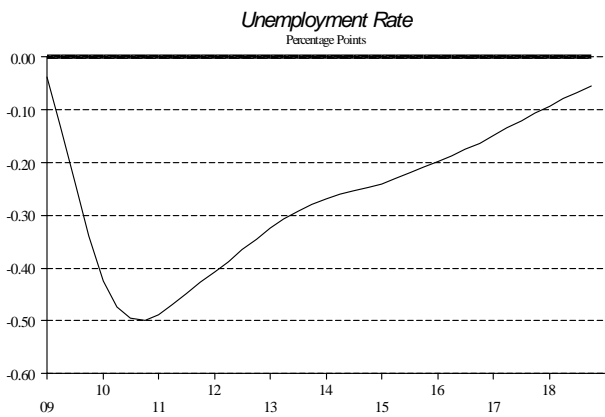
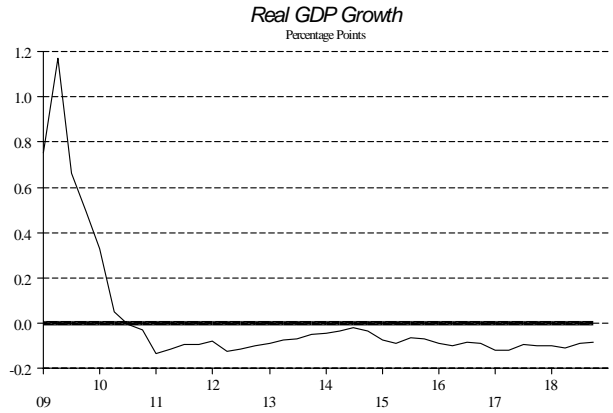
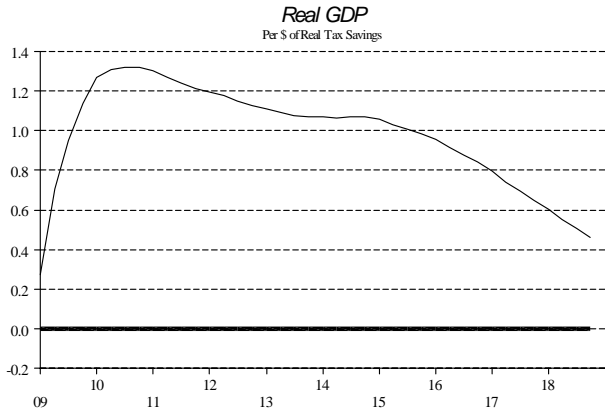
*Simulation of the SB Model of the U.S. Economy. Federal Reserve policy unchanged, federal funds rate held at Baseline.

Table 7
Budgetary Effects of Fiscal Policy Stimulus:
Permanent \$100 Billion Increase of Federal Government Transfers to Individuals
(Diffs. From Baseline Unless Otherwise Indicated)

| | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|
| Unified Federal Budget | | | | | | | | | | |
| Deficit/Surplus (-/+) (\$ Bils.) | -68.7 | -57.9 | -48.1 | -58.6 | -73.3 | -86.4 | -97.2 | -111.2 | -129.2 | -150.0 |
| Tax Receipts | 10.3 | 29.7 | 37.4 | 41.7 | 44.5 | 46.6 | 48.7 | 49.0 | 47.9 | 45.8 |
| Corporate | 4.3 | 9.3 | 8.7 | 7.8 | 7.4 | 7.3 | 7.2 | 6.6 | 5.8 | 5.1 |
| Personal | 3.0 | 11.3 | 16.5 | 19.8 | 21.7 | 22.7 | 24.0 | 24.6 | 24.6 | 23.8 |
| Ordinary Income | 2.9 | 9.0 | 13.1 | 16.1 | 17.7 | 18.7 | 20.1 | 21.0 | 21.3 | 20.9 |
| Capital Gains | 0.1 | 2.3 | 3.4 | 3.7 | 4.0 | 4.0 | 3.8 | 3.7 | 3.3 | 2.9 |
| Social Insurance | 2.4 | 8.0 | 10.8 | 12.5 | 13.8 | 14.7 | 15.5 | 15.8 | 15.6 | 15.0 |
| Excise | 0.5 | 1.1 | 1.4 | 1.5 | 1.7 | 1.8 | 1.9 | 2.0 | 1.9 | 1.9 |
| Outlays | 96.5 | 81.2 | 87.7 | 104.4 | 121.8 | 136.3 | 149.4 | 164.9 | 182.7 | 201.6 |
| Federal Purchases | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Transfers-to-Persons | 94.4 | 75.6 | 78.3 | 90.9 | 103.5 | 113.1 | 120.7 | 129.7 | 139.5 | 149.1 |
| Grants-in-Aid | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Net Interest | 2.1 | 5.6 | 9.5 | 13.4 | 18.3 | 23.3 | 28.7 | 35.2 | 43.2 | 52.5 |
| Gross Public Debt (\$ Bils. Diff.) | 102.0 | 218.1 | 311.4 | 421.6 | 557.7 | 719.2 | 901.7 | 1108.1 | 1345.0 | 1617.1 |
| Deficit/GDP (Pct. Pts.) | -0.4 | -0.3 | -0.2 | -0.3 | -0.4 | -0.4 | -0.4 | -0.5 | -0.5 | -0.6 |
| Debt/GDP (Pct. Pts.) | 0.3 | 0.5 | 0.9 | 1.4 | 2.0 | 2.6 | 3.3 | 4.1 | 5.0 | 6.0 |

Source: Decision Economics, Inc. (DE). Simulation of the SB Model of the U.S. Economy. Federal Reserve policy unchanged; federal funds rate held at Baseline.

Chart 5 Permanent \$100 Billion Tax Cut (Changes Relative to Baseline)*



*Simulation of the SB Model of the U.S. Economy. Federal Reserve policy unchanged; federal funds rate held at Baseline.

Table 8
Budgetary Impact of Permanent Tax Cuts: \$100 Billion
(Diffs. From Baseline Unless Otherwise Indicated)

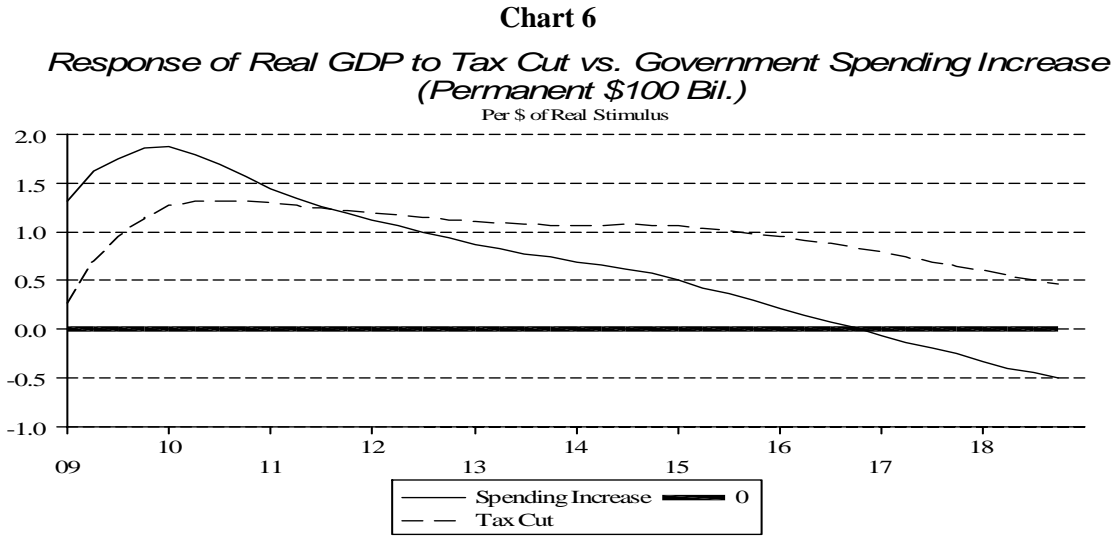
| | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|--|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|
| Unified Federal Budget Deficit/Surplus (-/+) (\$ Bils.) | -69.6 | -63.4 | -57.1 | -67.4 | -81.0 | -92.9 | -102.8 | -116.0 | -133.3 | -153.7 |
| Tax Receipts | -90.9 | -74.6 | -68.8 | -64.8 | -62.0 | -59.7 | -57.2 | -56.4 | -56.9 | -58.3 |
| Corporate | 4.0 | 8.1 | 7.2 | 6.7 | 6.5 | 6.7 | 6.8 | 6.3 | 5.7 | 5.1 |
| Personal | -97.6 | -91.0 | -86.9 | -84.1 | -82.5 | -81.5 | -80.2 | -79.4 | -79.2 | -79.7 |
| Ordinary Income | -97.6 | -92.4 | -89.0 | -86.5 | -85.0 | -84.0 | -82.6 | -81.7 | -81.1 | -81.2 |
| Capital Gains | 0.0 | 1.5 | 2.1 | 2.3 | 2.5 | 2.5 | 2.4 | 2.2 | 1.9 | 1.5 |
| Social Insurance | 2.3 | 7.3 | 9.7 | 11.3 | 12.5 | 13.5 | 14.4 | 14.8 | 14.8 | 14.4 |
| Excise | 0.5 | 1.0 | 1.2 | 1.4 | 1.5 | 1.7 | 1.8 | 1.9 | 1.9 | 1.8 |
| Outlays | -3.0 | -16.3 | -9.3 | 6.3 | 22.6 | 36.1 | 48.8 | 64.1 | 81.8 | 101.1 |
| Federal Purchases | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Transfers-to-Persons | -5.2 | -22.5 | -19.6 | -8.4 | 2.5 | 10.8 | 17.6 | 25.9 | 35.4 | 44.9 |
| Grants-in-Aid | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Net Interest | 2.3 | 6.1 | 10.3 | 14.7 | 20.1 | 25.4 | 31.2 | 38.1 | 46.4 | 56.2 |
| Gross Public Debt (\$ Bils. Diff.) | 103.4 | 228.0 | 336.6 | 462.7 | 612.9 | 786.1 | 978.8 | 1194.1 | 1438.6 | 1717.4 |
| Deficit/GDP (Pct. Pts.) | -0.4 | -0.4 | -0.3 | -0.3 | -0.4 | -0.4 | -0.4 | -0.5 | -0.5 | -0.6 |
| Debt/GDP (Pct. Pts.) | 0.3 | 0.7 | 1.2 | 1.7 | 2.4 | 3.0 | 3.8 | 4.6 | 5.5 | 6.4 |

Source: Decision Economics, Inc. (DE). Simulation of the SB Model of the U.S. Economy. Federal Reserve policy unchanged; federal funds rate held at Baseline.

financial conditions and is where the tax reduction has an initial impact. The improvements lead to more spending later and help sustain the gains in the levels of real GDP for the long-term.

For example, if shown, the Household Financial Conditions Index of Chart 1 would be much improved on a tax reduction for individuals, moreso if permanent, with the saved funds showing up in the household flows-of-funds and in various places on the balance sheet that provide support for additional spending later. Improved household balance sheets are a source of support for higher spending, permanently higher economic activity and a longer period of increased growth and lower unemployment, relative to the Baseline.

Finally, Chart 6 superimposes the results of a permanent \$100 billion tax reduction against a \$100 billion increase in federal government outlays. The *Model simulations indicate more power for longer on tax reductions than increases in federal government spending. A different distribution of jobs creation occurs on the nonfarm payroll basis under a program of tax reductions than from increases in federal government purchases.*



If major sources of the current economic crisis are the consumer, the deteriorated financial condition of households, and weakness in the private sector, the results indicate that increasing federal government purchases alone, or transfer payments, although an appropriate component of fiscal stimulus, should be combined with tax reductions, most probably permanent, to get maximum sustainable improvement in the economy and in jobs.

Perhaps most surprising on the exercises on tax relief is limited negative effects on the federal budget deficit as tax receipts on ordinary income, corporate profits, payroll, and excise taxes move up on the stronger economy, at least initially, and transfers-to-persons are reduced.

A Possible Obama Economic Recovery Program—Preliminary Results

A possible Economic Recovery Plan of the Obama Administration is simulated with the results shown in Chart 7, Table 10. Table 9 spells out the assumptions on the details of the two-year program and for the outyears as well. The Program net stimulus is \$737 billion over 2009-10 and \$1.8 trillion from 2009 to 2018. In 2009-10, federal government outlays total \$437 and net Tax Relief \$300 billion, making the outlays over these two years as a percent of the total 59.3% and tax relief 41.7%.

The program spending increases spread across government purchases, transfers to individuals for unemployment benefits and health care, aid to states and localities, and housing. The tax reductions are net and mostly for middle- and lower-income families. The current law on capital gains and dividend taxation is not altered, but the lower capital gains and dividend tax rates are allowed to expire at the end of 2011.

Federal government outlays are divided between infrastructure spending, \$102 billion in the first two years; transfers to individuals for unemployment benefits and health care support, \$160 billion; aid to states and localities \$60 billion; medical technology support \$80 billion; and “help for housing” of \$35 billion. These estimates are just that and do not foreshadow what the ultimate Obama Administration Plan might be for outlays—the “scenario” and figures are meant as approximations of a hypothetical program.

On “Tax Relief,” over 2009-2010 \$200 billion of permanent marginal income tax rate reductions are indicated with \$100 billion in tax credits. A list of possible tax credits is in Table 10. Beyond 2010, the Bush Administration lower marginal income tax rates on higher income families are assumed to expire and the capital gains and dividend tax rates on upper income families to increase to 20% from 15%. These figures offset some of the stimulus of the Obama Economic Recovery Plan which is also long-run in nature particularly on government infrastructure spending.

The deficit-to-GDP ratios on the Economic Recovery Plan rise into a range of -8% to -10% in 2009-2010, falling thereafter but remaining quite high relative to history, at -6%-or-more. The ratio of gross debt-to-GDP soars into the mid-80% range and reaches over 100% by 2016.

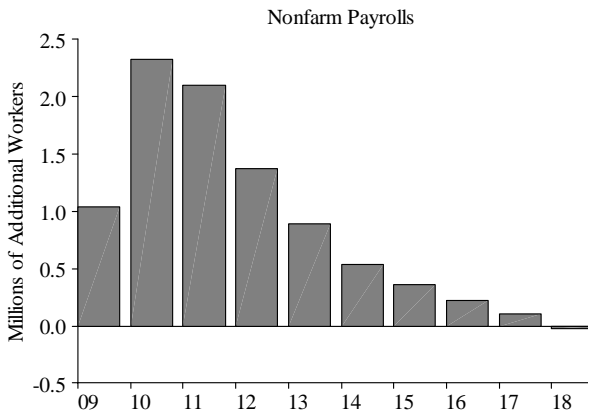
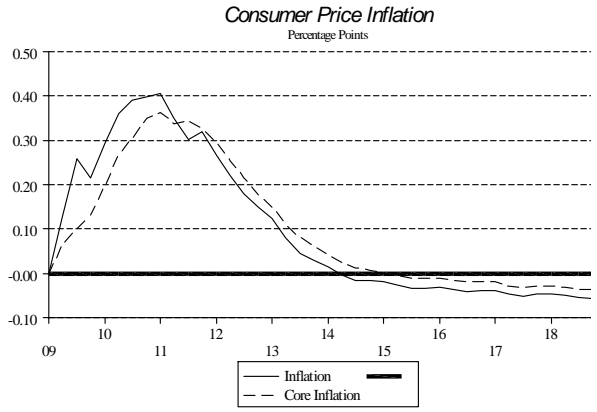
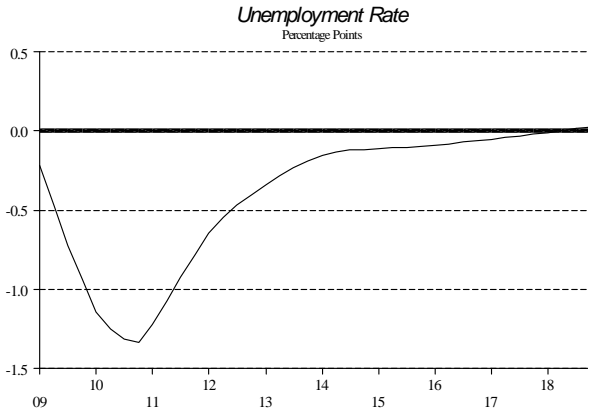
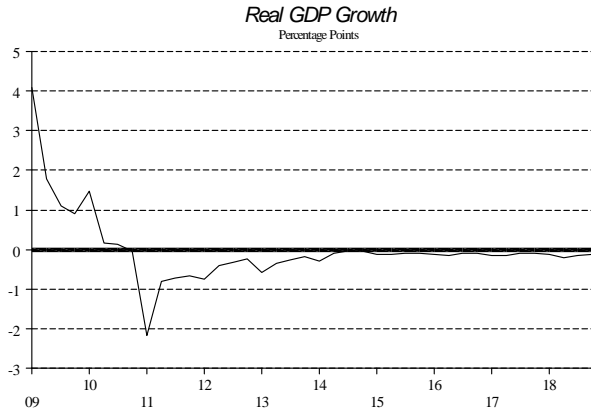
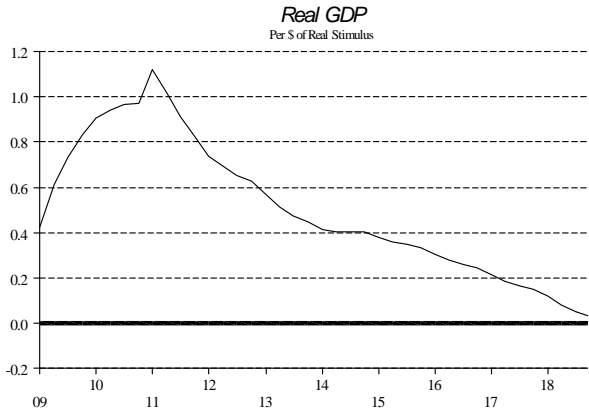
Chart 7 and Table 10 show some effects of the Economic Recovery Plan and its budgetary impacts, respectively. The Program is assumed to start in the first quarter of 2009.

Table 9
A Possible Economic Recovery Program*

| | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | Cum. 2009-10 | Cum. 2009-18 |
|---|------|------|------|------|-------|-------|------|-------|-------|-------|-----------------|-----------------|
| Federal Government Purchases of Goods and Services | | | | | | | | | | | | |
| Infrastructure spending | | | | | | | | | | | | |
| National Infrastructure Bank | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 12 | 60 |
| Infrastructure Outlays | 35 | 55 | 37.5 | 37.5 | 37.5 | 37.5 | 37.5 | 37.5 | 37.5 | 37.5 | 90 | 390 |
| Subtotal | 41 | 61 | 43.5 | 43.5 | 43.5 | 43.5 | 43.5 | 43.5 | 43.5 | 43.5 | 102 | 450 |
| Unemployment Benefits and | | | | | | | | | | | | |
| Health Care Support | 20 | 30 | 15 | 10 | 5 | 0 | 0 | 0 | 0 | 0 | 50 | 80 |
| Subsidize Medicaid | 55 | 55 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 110 | 110 |
| Other Goods and Services | | | | | | | | | | | | |
| Help Medical Providers | | | | | | | | | | | | |
| Buy Info. Technology* | 40 | 40 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 80 | 80 |
| Aid to States and Localities | 25 | 35 | 25 | 15 | 5 | 0 | 0 | 0 | 0 | 0 | 60 | 105 |
| Help for Housing | 20 | 15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 35 | 35 |
| Subtotal for Outlays | 201 | 236 | 83.5 | 68.5 | 53.5 | 43.5 | 43.5 | 43.5 | 43.5 | 43.5 | 437 | 860 |
| * Treated as government asset. (Federal Government assumed to have some role in purchase of machinery for medical records.) | | | | | | | | | | | | |
| Tax Relief | | | | | | | | | | | | |
| Marginal Rate Reduction | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 200 | 1000 |
| Tax Credits | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 100 | 500 |
| Education | | | | | | | | | | | | |
| Expand Earned Inc. Tax Credit | | | | | | | | | | | | |
| Expand Child Care Credit | | | | | | | | | | | | |
| Making Work Pay | | | | | | | | | | | | |
| Universal Mortgage | | | | | | | | | | | | |
| Expand Savers Credit | | | | | | | | | | | | |
| Exemption for Seniors | | | | | | | | | | | | |
| Permanent R&D and | | | | | | | | | | | | |
| Renewable Energy Credits | | | | | | | | | | | | |
| Subtotal for Tax Relief | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 300 | 1500 |
| Total Stimulus | | | | | | | | | | | 737 | 2360 |
| Revenue Increases | | | | | | | | | | | | |
| Raise top two tax rates (upper incomes) | | | -34 | -41 | -47 | -53 | -59 | -65 | -71 | -77 | 0 | -447 |
| Raise cap. gains & dividend tax rates on upper incomes | | | -7.4 | -3.2 | -18.4 | -18.4 | 18.4 | -18.4 | -18.4 | -18.4 | | -121 |
| Revenue Subtotal | | | | | | | | | | | | -568 |
| Total Tax Increases | | | | | | | | | | | | -568 |
| Net Stimulus | | | | | | | | | | | 737 | 1792 |

* Based on fragmentary accounts of a possible policy stimulus. Hypothetical for purposes of simulation.

Chart 7 Obama Administration Economic Recovery Plan (Changes Relative to Baseline)*



*Simulation of the SB Model of the U.S. Economy. Federal Reserve policy unchanged; federal funds rate held at Baseline.

Table 10
Budgetary Effects of an Obama Administration Economic Recovery Plan
(Diffs. From Baseline Unless Otherwise Indicated)

| | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Unified Federal Budget Deficit/Surplus (-/+) (\$ Bils.) | -260.9 | -310.5 | -149.7 | -139.0 | -155.7 | -173.7 | -185.2 | -196.9 | -212.4 | -220.2 |
| Tax Receipts | -124.9 | -87.0 | -36.3 | -37.1 | -23.3 | -26.3 | -22.0 | -18.5 | -15.4 | 4.1 |
| Corporate | 7.9 | 14.9 | 13.0 | 10.3 | 8.8 | 7.9 | 7.6 | 6.9 | 6.3 | 5.5 |
| Personal | -141.9 | -125.4 | -76.6 | -73.5 | -57.2 | -58.0 | -52.8 | -47.9 | -43.2 | -21.6 |
| Ordinary Income | -141.8 | -127.3 | -86.2 | -78.8 | -74.3 | -70.0 | -64.2 | -58.6 | -53.3 | -31.1 |
| Capital Gains | -0.1 | 1.9 | 9.7 | 5.3 | 17.1 | 12.0 | 11.3 | 10.6 | 10.1 | 9.5 |
| Social Insurance | 7.6 | 20.5 | 24.5 | 23.4 | 22.4 | 21.1 | 20.6 | 20.0 | 19.1 | 17.9 |
| Excise | 1.5 | 2.9 | 2.8 | 2.7 | 2.7 | 2.7 | 2.7 | 2.6 | 2.5 | 2.3 |
| Outlays | 152.5 | 165.1 | 72.1 | 111.8 | 135.3 | 150.3 | 166.3 | 182.7 | 201.9 | 224.2 |
| Federal Purchases | 35.6 | 52.9 | 37.8 | 37.8 | 37.8 | 37.8 | 37.8 | 37.8 | 37.8 | 37.8 |
| Transfers-to-Persons | 57.0 | 27.6 | -26.5 | 14.3 | 37.3 | 48.7 | 56.1 | 63.1 | 71.8 | 80.2 |
| Grants-in-Aid | 50.0 | 60.0 | 25.0 | 15.0 | 5.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Net Interest | 9.9 | 24.5 | 35.8 | 44.8 | 55.3 | 63.9 | 72.5 | 81.8 | 92.4 | 106.2 |
| Gross Public Debt (\$ Bils. Diff.) | 323.6 | 794.4 | 1080.6 | 1329.5 | 1616.4 | 1934.4 | 2276.2 | 2638.6 | 3027.2 | 3431.9 |
| Deficit/GDP (Pct. Pts.) | -1.6 | -1.8 | -0.8 | -0.7 | -0.8 | -0.8 | -0.8 | -0.8 | -0.9 | -0.9 |
| Debt/GDP (Pct. Pts.) | 1.0 | 2.9 | 4.6 | 5.9 | 7.2 | 8.4 | 9.6 | 10.9 | 12.2 | 13.5 |

Source: Decision Economics, Inc. (DE). Simulation of the SB Model of the U.S. Economy. Federal Reserve policy unchanged; federal funds rate held at Baseline.

Real GDP growth rises considerably, relative to Baseline, through this year and most of 2010. The multiplier effects on real GDP are sizeable and considerable. The unemployment rate is 1.3 percentage points lower by late 2010 compared with the Baseline, a major decline. Inflation is slow to respond but does move higher, overall and in the Core, by about 0.4 percentage points in 2010. *However, if the Baseline inflation rate stays low or a deflationary spiral starts to develop, this increase would be welcome. Jobs creation, or the prevention of jobs losses, is substantial, almost 3-1/2 million nonfarm payroll jobs cumulatively over 2009 and 2010.*

The negative budgetary side effects are considerable, however, with a substantial increase in the federal budget deficit as a proportion of real GDP, 1.6 and 1.8 percentage points, respectively, over 2009 and 2010, to levels from -8% to possibly as high as -10%. *These are about double what occurred under the Reagan Administration in the 1980s and early 1990s.*

The gross public debt moves significantly higher and by 2018 is \$3.4 trillion above the Baseline. The debt-to-GDP ratio, already high from the cyclical rises of deficits and structural requirements of mandatory government spending, moves up even more, by 2012 six percentage points above the Baseline and at the end of the simulation horizon in 2018, 13.5 percentage points higher. *Thus, the gross debt-to-GDP ratio of the United States moves quite a lot higher, reaching over 100%, a figure not seen since W.W.II when this ratio exceeded 105%.* Issues relating to long-term interest rates, the U.S. dollar, and changes in global economic power and wealth would be raised by this kind of result.

No Obama Exit Plan is conjured up for the problem of rising deficits and rising debt off the hypothetical Economic Recovery Plan that was simulated.

Deficit and Debt Prospects—Can the U.S. Afford All of the Stimulus In-Process and Planned?

Under virtually all circumstances, the prospects are for record-high U.S. federal government budget deficits and gross public debt outstanding relative to GDP. The deficit and debt burdens of the federal government are rising sharply and will do so under almost any scenario currently plausible for the U.S. economy and financial markets.

Why is this so?

One reason is cyclical—an economic downturn that arguably will be the worst since the 1930s. The loss in tax receipts and increases in federal government spending as a result are a major reason for the recent sharp deterioration of U.S. Government finances. Over the first quarter of the fiscal year, the cumulative federal budget deficit was approximately -\$485 billion.

The Baseline estimate for FY2009 is -\$1.4 trillion. The declines in tax receipts also include a huge drop in capital gains taxes and in capital gains realizations given the 40% decline in the U.S. stock market during 2008. Capital gains realizations on residential real estate also are declining. Capital gains tax receipts can cause sharp swings in the federal budget deficit or surplus.

Second are the mandatory entitlements spending of the federal government for retirement, Medicare, and Medicaid. With an aging population, more Social Security retirees, rising costs of health care and in the numbers of beneficiaries, this category of government outlays is perhaps the biggest source of the structural budget deficits going forward that also will reach record highs.

Third is the outlays occasioned by federal government support of the financial system in such programs as the Troubled Asset Relief Program (TARP), nearly \$300 billion of which has been spent since October. Expenditures for Iraq and Afghanistan also underlie the federal budget deficit and its deterioration.

Tax reductions over 2001 to 2005 from the Bush Administration are contributing to the deficits as well. But the biggest swing currently has to be cyclical and from the use of taxpayer monies to support the financial system.

Table 11 shows the Decision Economics, Inc. (DE) deficit projections on a Baseline scenario extending out to 2019. The Baseline projections reflect average annual growth in real GDP beyond 2011 of 2-1/2% to 2-3/4% per annum. The unemployment rate averages near 6%. Inflation, measured by the CPI, runs in the 2-1/4% to 2-1/2% range. This Table does not assume an Obama Economic Recovery Plan. The federal government support programs for financial institutions and the financial markets are included in these estimates.

A worse recession or 1930s-like result would make these Baseline figures considerably worse; a "V"-like upturn would lead to improvement. But, even here, the deficits and rising debt-to-GDP ratios would persist.

Table 12 shows the resulting deficits under approximately an \$800 billion Economic Recovery Program along the lines simulated earlier. Here, the deficits soar even higher, much higher, in fiscal years 2009 to 2011 and exceed \$1 trillion for nearly all of the next decade.

The debt implications are striking with gross federal debt as a percent of GDP rising from the current approximate 70% to over 100% in 2016-to-2019. These figures match W.W.II levels. Debt held by the public, which excludes holdings of the debt by the federal government, rises similarly to record-highs between 75% and 80%.

Table 11
DE Budget Baseline—2008-2019
(Bils. Unless Otherwise Noted, Fiscal Years)

| | Actual 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|-----------------------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| DE Deficit | -455 | -1408 | -1167 | -721 | -656 | -685 | -727 | -806 | -906 | -104 | -1127 | -1259 |
| % of GDP | -3.2 | -9.8 | -7.8 | -4.5 | -3.9 | -3.8 | -3.9 | -4.0 | -4.4 | -4.7 | -5.0 | -5.4 |
| Receipts | 2524 | 2382 | 2236 | 2727 | 2898 | 3090 | 3261 | 3406 | 3554 | 3718 | 3579 | 4047 |
| % of GDP | 17.7 | 16.6 | 14.8 | 17.1 | 17.2 | 17.3 | 17.5 | 17.4 | 17.4 | 17.4 | 17.3 | 17.2 |
| Outlays | 2978 | 3975 | 3292 | 3448 | 3553 | 3776 | 3988 | 4212 | 4459 | 4723 | 4006 | 4306 |
| % of GDP | 20.9 | 26.4 | 21.8 | 21.6 | 21.1 | 21.2 | 21.4 | 21.5 | 21.6 | 22.0 | 22.3 | 22.6 |
| Gross Federal Debt | 9986 | 11789 | 12710 | 13569 | 14373 | 15202 | 16066 | 16998 | 18013 | 19112 | 20315 | 21630 |
| % of GDP | 70.2 | 82.2 | 84.2 | 85.0 | 85.2 | 85.3 | 86.1 | 87.0 | 88.0 | 89.2 | 90.6 | 92.1 |
| Deficit Held by the Public | 5803 | 7457 | 8177 | 8832 | 9427 | 10049 | 10710 | 11444 | 12270 | 13188 | 14219 | 15373 |
| % of GDP | 40.8 | 51.9 | 54.2 | 65.3 | 55.9 | 56.4 | 57.4 | 58.5 | 60.0 | 61.5 | 63.4 | 65.4 |

Table 12
DE Budget Baseline—2008-2019
With an Economic Recovery Plan of About \$800 Billion
(Bils. Unless Otherwise Noted, Fiscal Years)

| | Actual 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|-----------------------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| DE Deficit | -54 | -1825 | -1272 | -1092 | -974 | -1006 | -1035 | -1117 | -1243 | -1578 | -1524 | -1589 |
| % of GDP | -3.2 | -12.7 | -8.4 | -6.8 | -6.6 | -6.6 | -6.5 | -6.7 | -6.1 | -6.4 | -6.8 | -7.2 |
| Receipts | 2524 | 2183 | 2295 | 2521 | 2704 | 2899 | 3074 | 3228 | 362 | 3511 | 3672 | 3631 |
| % of GDP | 17.7 | 15.2 | 15.2 | 15.8 | 16.0 | 16.3 | 16.5 | 16.5 | 16.4 | 16.4 | 16.4 | 16.3 |
| Outlays | 2978 | 4007 | 3571 | 3615 | 3678 | 3906 | 4107 | 4338 | 4605 | 4890 | 5195 | 5520 |
| % of GDP | 20.9 | 27.8 | 22.8 | 22.7 | 22.6 | 21.8 | 21.9 | 22.0 | 22.2 | 22.5 | 22.8 | 23.2 |
| Gross Federal Debt | 8986 | 12137 | 13495 | 14668 | 15742 | 15842 | 17967 | 18161 | 20462 | 21671 | 23410 | 25088 |
| % of GDP | 70.2 | 84.4 | 89.4 | 91.9 | 93.3 | 94.5 | 96.2 | 98.0 | 100.0 | 102.1 | 104.3 | 106.8 |
| Deficit Held by the Public | 5903 | 7838 | 9036 | 10035 | 10924 | 11844 | 12789 | 13811 | 14950 | 16207 | 17835 | 18157 |
| % of GDP | 40.8 | 54.5 | 59.8 | 62.9 | 64.8 | 66.4 | 68.5 | 70.7 | 73.0 | 75.6 | 78.5 | 81.6 |

The deficit and debt prospects under almost under scenario are daunting, with deficit-to-GDP and debt-to-GDP ratios not seen before in a G-7 country. This territory is uncharted with no real historical analogue to this kind of financial situation for a major global economic power.

The deficit and debt prospects cannot be benign, however. Sometime during the next several years the U.S. economy will recover and inflation begins to pick up. The deficits in-process and to-come from policy stimulus by the federal government and Federal Reserve set the path of debt accumulation on a very high plane. With potential economic growth much lower than historically, debt will be rising faster than GDP, burdening future generations with interest payments, financing and repayment that almost certainly will lead to much diminished U.S. economic growth, on average, and a reduced standard-of-living.

The answer to whether the U.S. can afford all of the initiatives on its wish list—economic, societal, defense, and otherwise—is no!

Financial Market Effects of Rising Deficits and Debt

The rising federal government deficits and outstanding debt of the federal government most certainly will result in some sort of restraint on U.S. economic growth, a potential reflation, or both in the years ahead.

The financing of these prospective deficits, debt, and the rolling over of outstanding indebtedness will result in a huge volume of Treasury financing in the quarters and years ahead—dwarfing anything seen in U.S. history including the huge Treasury financing of the Reagan years and in the recent years of the Bush Administration.

The current situation is one of a shortage of U.S. Treasury securities given the “safe haven” nature of U.S. federal government debt in the eyes of U.S. citizens and around-the-world. Despite the current economic situation and prospects for rising deficits and debt, the U.S. dollar has done well against most major currencies except the yen, benefiting from safe haven status and the distress, both economic and financial, that other major countries are facing.

However, the U.S. is contemplating larger fiscal stimulus and providing more support to the financial system through the Federal Reserve than most other countries so that the financial exposure of the U.S. Government is greater.

At some point, when some sort of cyclical recovery occurs in the U.S. and elsewhere, the dollar and U.S. Treasury securities will no longer be a safe haven repository for investors from around-the-world and the demand for U.S. Treasury securities will diminish. There already are signs of this happening.

The huge financing necessary will have to be done by U.S.-based investors out of savings, meaning less spending. It is almost inconceivable that other countries, whether China, Russia, Japan, the Middle East oil-producers, or others will allocate as much investment to U.S. Treasuries as previously, especially at such low rates of return.

Interest rates will have to rise and the dollar decline to equilibrate the demands and supplies for U.S. Treasury securities and the U.S. currency, suggesting a weaker stock market and less U.S. economic growth. Higher interest rates than otherwise and a weaker stock market with perhaps less investments into the U.S. for other areas as well suggests that U.S. saving from households and businesses will have to rise to absorb the financing of these huge deficits and accumulated debt.

Of course, the Federal Reserve can always buy and absorb the Treasury securities, especially given the low proportion of Treasuries in its portfolio currently. But, once the global economy has recovered, the purchasing and absorption of large volumes of Treasury securities by the Federal Reserve would be inflationary, contributing to higher inflation, less purchasing power, and less U.S. real economic growth.

Once a country has locked-in deficits and accumulating debt along with the repayments, rolling-over, and interest on that debt, less is available for productive use and a step down the line of diminished economic power and wealth has been taken.

The financial markets would be the principal focal point for the time when the soaring deficits and debt of the federal government would tip the U.S. toward another downturn or simply much less trend growth and a diminished standard-of-living.

Possible Actions

What actions, or options, are available to deal with the prospect of rising deficits and rising debt and the burdens presented on the U.S. economy, economic growth, and U.S. economic performance prospects?

There are some choices—none really pleasant.

1) Do nothing—simply let economic and financial market forces take their course. In this situation, the deficit and debt burdens would be much as is shown in the DE Baseline prospect. However, this is hardly an option and does not deal with the problem of creditworthiness for the U.S. Government and the financial fragility embodied in the projections shown above.

2) Provide less fiscal stimulus in response to the current situation and let the economy languish more than it might otherwise, or a stretching-out of the \$800 billion-or-so economic stimulus program that is emerging in Washington. Massive fiscal stimulus along with all the

other financial requirements of the U.S., including for health care and for an aging population, would simply have to be unsatisfied and could be spread over time to slow the pace of growth in the deficits and debt to allow more rapid growth in the economy and thus a balancing of the deficit-to-GDP and debt-to-GDP ratios.

3) Change the composition of the fiscal stimulus—more on tax reductions than increases in government spending. Lower taxes historically provide more stimulus to the private sector and U.S. equity markets than does federal government spending. Focusing on tax cut stimulus that might lead to higher asset prices—for example, on real estate and stocks—could help increase tax receipts through greater capital gains realizations which are lacking now. The incentive effects of marginal tax rate reductions and increase in real aftertax returns to investors have been a major source of expansion in the U.S. economy. Heavy emphasis on federal government spending historically has not produced the same results as reductions in individual and business taxes.

4) Actions to raise taxes to close the gap and slow the accumulation of debt is a possibility, necessary earlier rather than later since debt will continue to grow on every increase in the budget deficit with interest payments on the debt requiring more debt financing as well.

Raising taxes on upper income families is one possibility. Eliminating the carried interest contingency is yet another. Changing the tax system and instituting a VAT with exceptions is yet another possibility. But, tax increases, while helping to close the budget gap and to slow the growth of debt, would restrain an already restrained economy from growing faster.

5) PAYGO for the longer-run and/or phase-out of tax and spending stimulus—the fiscal stimulus likely to emerge from Washington could contain in its legislation mechanisms that would provide for a sunset of both spending and tax stimulus and a reinstatement of PAYGO for over a multiyear basis. Legislating PAYGO has worked before but is difficult to do.

6) Expenditure reductions—the preferred way to keep the federal budget deficit down and to slow the growth in federal government debt. Reductions in wartime expenditures, for example on Iraq and Afghanistan, more efficient government spending, and most importantly coming to grips with the spending related to retiring Americans and health care would be desirable. This is perhaps the toughest problem of all, but health care costs and health care inflation may perhaps be the biggest reason for large budget deficits.

7) Fixing Social Security is relatively easy, by changing the index used for cost-of-living adjustments and raising the retirement age. Health care costs are another issue, however. Here, setting up a Bipartisan Commission to deal with this issue would be advisable.

8) Possible alarm over nothing with the Federal Reserve absorbing the bulk of the increase in Treasury issues in a slack economy where inflationary pressure will be slow to develop.

Whatever actions might be possible, the looming federal government deficit and debt problems need attention and the sooner the better. No nation can run unlimited federal budget deficits and get through large debt burdens without economic pain and adjustments. Actions to forestall and circumvent a federal government debt crisis before it happens would be well-advised.

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