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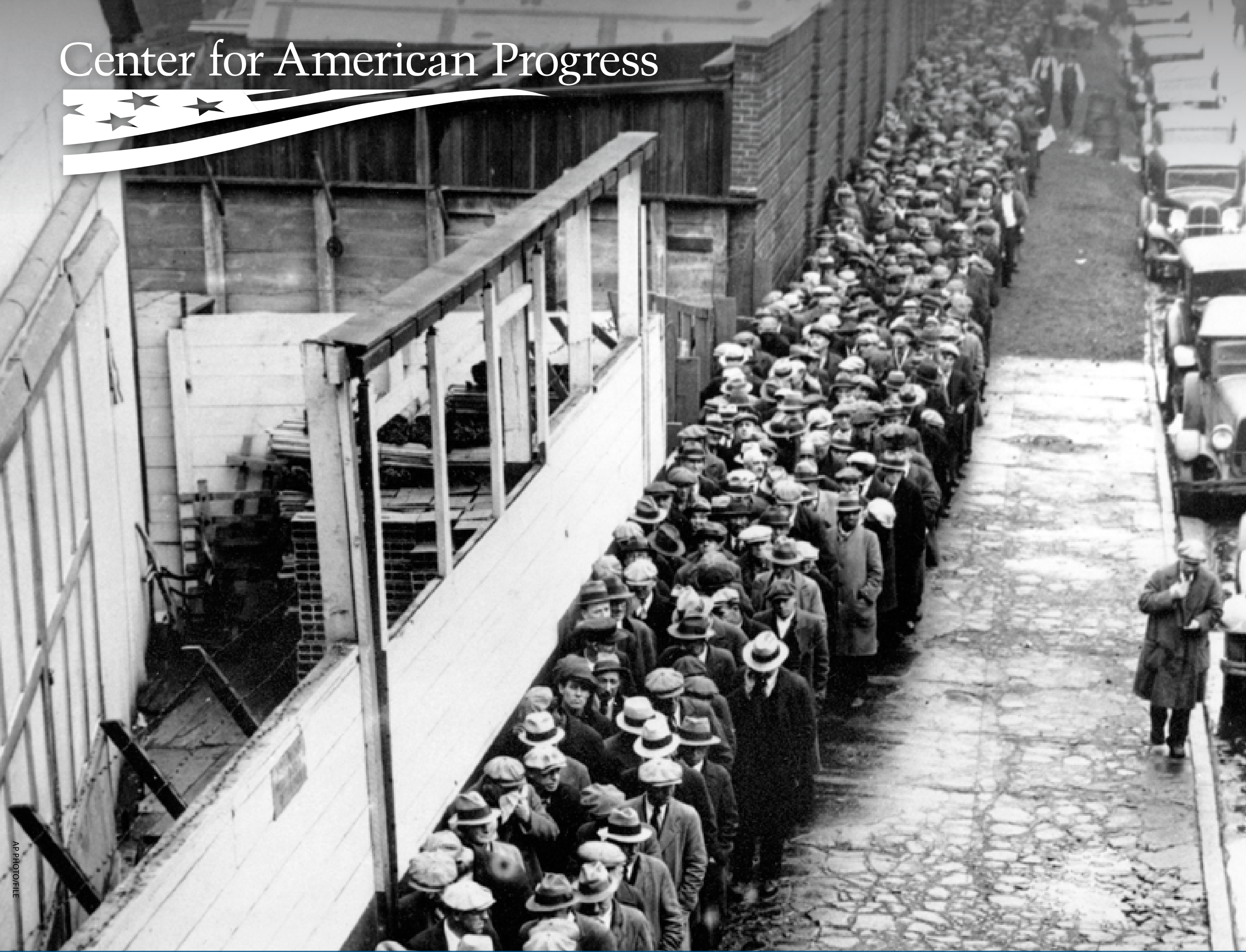

AP PHOTO/FILE

In this 1932 file photo, long line of jobless and homeless men wait outside to get free dinner at New York's municipal lodging house during the Great Depression.

Pumping Life Back into the U.S. Economy

Why a Stimulus Package Must Be Big and Targeted

Scott Lilly January 2009

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Introduction

Before federally sponsored electric cooperatives extended the magic of electricity to rural America, many in our country got their water by using a backyard hand pump. These pumps were simple yet remarkable tools. They could produce gallons upon gallons of water from deep below the surface of the earth without great exertion. But before any water would flow, the users of these pumps had to make certain that there was a solid column of water from the level of the underground reservoir to the base of the pump. Sometimes, they had to pour water into the ground before they could pump larger quantities out.

"Priming the pump" is a metaphor that economists have frequently used to explain a policy of using government deficits to restore the circulation of goods, services, and money in a struggling economy. As our economy continues to deteriorate after nearly a year in recession, the question of pump priming becomes a central issue in public discourse. But there are a number of questions that need to be addressed before enacting any economic stimulus plan. These include:

- Won't economic stimulus add to the federal budget deficit when our total public debt is already out of control?
- Who will lend the federal government the funds to cover the expected increase in the budget deficit?
- How much economic stimulus is necessary?
- How should a stimulus package be structured?

In the pages that follow, this paper will examine each of these questions in turn, beginning with a historical analysis of government deficit spending and ending with an analysis of what exactly needs to be done. The purpose: to explain why a large but targeted economic stimulus package is critical to cope with an even more severe recession in 2009 than we've already experienced in 2008.

Measuring Economic Performance

This paper (like others that discuss the Great Depression) is greatly disadvantaged by the lack of quality statistical collection during that period. There was no Consumer Price Index or monthly survey of households or employers. There were no National Income and Product Accounts and thus no truly reliable measure of industrial output, personal income or consumption. The idea of a System of National Accounts was introduced by the Commerce Department in 1937; the concept of Gross National Product or Gross Domestic Product was not fully developed until World War II.

As a result, the statistics used in this paper from the 1920s and 1930s are based on the efforts of analysts who combed through what data was available and attempted to make the best estimates possible given the lack of real data. Our true knowledge of how many people were unemployed, how much prices fluctuated or how much the economy grew or shrank within a given time period is significantly less reliable than the types of measures we have today.

This limits our capacity today to fully understand what took place during the Great Depression. And back then, it placed severe limits on the capacity of President Herbert Hoover and then President Franklin Delano Roosevelt to comprehend and cope with downward spiral that gripped the nation.

Amid the current crisis we should feel fortunate for the investments made in a system that gives us far more precise and timely information for understanding economic change.

Deficits and depressions

Many people find it difficult to accept that it would be a good thing for the federal government to deliberately increase the federal budget deficit even further when the deficit in the fiscal year that just ended totaled $455 billion, and when the deficit in the current fiscal year could be twice that size even without a stimulus package. Indeed, total public debt (excluding debt owed by the federal government to itself) now stands at $5.8 trillion—more than 70 percent bigger than it was 8 years ago. Why should we deliberately add more?

First of all, it is important to understand that our situation with respect to the public debt is not nearly as bad as those figures might seem. Measuring the debt burden of nations is not dissimilar to measuring the debt burden of individuals or families. Someone who owes $100,000 can be either in very bad financial shape or very good financial shape depending on his or her level of income. A person who works at the minimum wage could be in real trouble carrying a debt of $100,000, but a million dollar-a-year executive could handle such a debt with ease.

The U.S. economy is currently estimated to be about $14.5 trillion, which means the $5.8 trillion public debt equals about 40 percent of gross domestic product. That is actually much lower than it was in the early 1950s—and much lower than the debt held by most other economically developed countries.[1]

Lessons of the Great Depression and the New Deal

During the 1920s the United States rapidly paid down the debts it had built up from World War I. Despite the stock market crash in 1929, the federal government continued to maintain an extraordinarily tight fiscal policy, running a budget surplus in 1930 and only a small deficit in 1931. By 1930, total public debt stood at 18 percent of GDP.

But the fiscal discipline exercised by Congress and the Hoover administration, coupled with a tight monetary policy and protectionist trade policies, proved to be very bad medicine. Unemployment swelled from a little more than 3 percent in 1929 to nearly 9 percent in 1930, to more than 16 percent in 1931, and to nearly 25 percent in 1932. In nominal dollars, the overall size of the economy was reduced by 40 percent in only three years.

The effort to maintain a balanced budget in the face of economic collapse fell apart in 1931. Tax collections for fiscal year 1932—which began in July of 1931—fell to less than half the amounts collected only two years earlier. At the same time, demands for relief from the American people overwhelmed the capacity of Congress and the White House to resist swelling the fiscal 1932 budget deficit to only slightly less than 5 percent of GDP. The 1933 deficit was nearly that large.

Franklin D. Roosevelt was sworn into office in March of 1933, and while he generated a host of new approaches to dealing with the economic policy, his deficit policy did not deviate significantly from Hoover's tightfistedness. The deficit for fiscal 1934, which began about 14 weeks after Roosevelt was inaugurated, was 5.4 percent of GDP. That would be equivalent to a budget deficit in today's economy of $780 billion—about 70 percent bigger than the $455 billion deficit we had in fiscal 2008—but only slightly larger as a share of GDP than the last two Hoover budgets.

Further, the Roosevelt administration was unwilling to allow deficits to rise above that level despite the fact that unemployment was declining at an extremely slow pace. At the beginning of fiscal 1935—when the budget deficit was cut back to 4 percent of GDP—unemployment was above 21 percent. A somewhat larger deficit in 1936 saw the unemployment rate fall to 17 percent. The economy was no longer in a tailspin, but it continued to sputter, and the level of human misery and financial pain continued to be enormous.

Nonetheless, by 1936 there was increasing pressure to restore fiscal discipline. During fiscal 1937 (which began in July 1936) the deficit was shaved to 2.5 percent of GDP and the following year (fiscal 1938) the deficit was almost eliminated (-0.1 percent). Economic historian Price Fishback has written in a recently published book, *Government and the American Economy, A New History*, that Roosevelt was never convinced of the use of government spending as a form of fiscal stimulus:

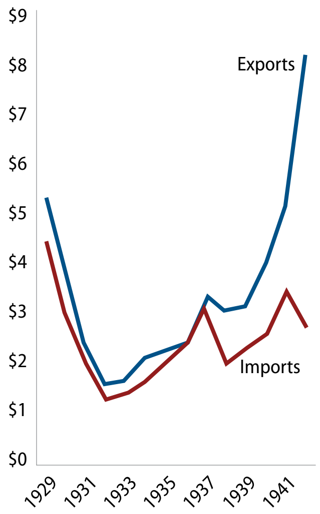
> *Roosevelt was following a far more conservative path because he, like Hoover, sought to avoid leaving the federal budget too far out of balance… As a result the federal budget deficit was never very large relative to economic shortfalls during the 1930s. Writing in 1941, Alva Hansen, a major figure in aiding the diffusion of Keynesian thought in the economics profession stated, "Despite the fairly good showing made in the recovery up to 1937, the fact is that neither before nor since has the administration pursued a really positive expansionist program…for the most part the federal government engaged in a salvaging program and not in a program of positive expansion.*

In January 1938, President Roosevelt said in this State of the Union address:

> *We have heard much about a balanced budget, and it is interesting to note that many of those who have pleaded for a balanced budget as the sole need now come to me to plead*

U.S. exports and imports

1929 to 1942 (in billions)



Source: Historical Statistics of the United States, "Colonial Times to 1970, Part 2 Chapter U," available at http://www2.census.gov/prod2/statcomp/documents/CT1970p2-08.pdf.

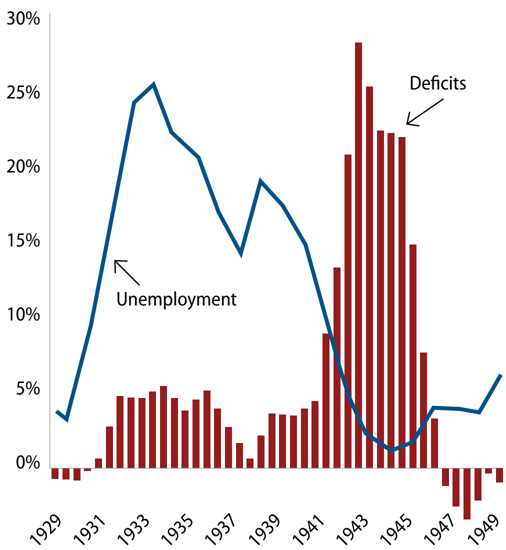
> *for additional government expenditures at the expense of unbalancing the budget. As the Congress is fully aware, the annual deficit, large for several years, has been declining the last fiscal year and this. The proposed budget for 1939, which I shall shortly send to the Congress, will exhibit a further decrease in the deficit, though not a balance between income and outgo.*[2]

But only a few months later—as fiscal 1938 drew to an end—it became apparent that harsh budget discipline once again had a negative impact on the nation's fragile economy. The growth that had occurred since 1933 was reversed. Commerce Department historical statistics indicate that the U.S. economy was about 3 percent smaller by the end of 1938 than it had been at the end of 1937. Similarly, unemployment rose to 19 percent in 1938 after declining to 14.3 percent in 1937. Unemployment remained too high and household demand for goods and services remained too weak to permit the government to abandon the effort for stronger growth.

1940 was the beginning of recovery not because of stimulus from the U.S. Treasury, but because foreign governments were borrowing to prepare for war and a portion of their purchases were for American-made products. U.S. exports increased by more than 25 percent in 1940, and by an even larger amount in 1941. Exports in 1941 exceeded imports by $1.8 billion (1.5 percent of GDP) which on top of a $5.6 billion budget deficit (4.9 percent of GDP) gave the U.S. economy the push it had long needed. Unemployment in 1941 fell to slightly under 10 percent for the first time in 12 years.[3]

Deficits and unemployment

1929 to 1949 (deficits expressed as percent of GDP)



Source: Historical Statistics of the United States, "Colonial Times to 1970, Part 1 Chapter D" available at http://www2.census.gov/prod2/statcomp/documents/CT1970p1-05.pdf.

The lessons of World War II

Although Keynesians could not convince policymakers in Washington that the key to economic recovery was for the federal government to use its credit to borrow and spend sums large enough to spark growth and restore confidence, the Japanese Imperial Navy proved to be more persuasive. In the wake of Pearl Harbor the federal budget deficit for fiscal 1942 jumped to 14.2 percent of GDP as unemployment dropped to 4.7 percent.

World War II pushed deficits still higher in the ensuing years, reaching nearing 30 percent of GDP in 1943 before falling back to 23 percent in 1944 and 22 percent in 1945. The total public debt, which had risen from 18 percent of GDP in 1930 to 42 percent in 1940, swelled to 109 percent by 1946.

After the war, the U.S. economy had sufficient vigor that the major concern was rising prices and not declining growth. While the federal budget was rarely balanced or in surplus during the early decades following World War II, the size of the deficits in all but a few years were smaller than the rate of economic growth. As a consequence the debt steadily shrank as a share of GDP. By the early 1970s, the public debt had dropped to 25 percent of GDP.

The last three decades

The steady improvement in the size of the nation's total debt relative to annual GDP growth stagnated in the 1970s and abruptly reversed course in the 1980s as the federal government simultaneously accelerated military procurement and slashed tax rates. By 1993, total public debt as a percentage of GDP had nearly doubled from the levels of the 1970s, standing at slightly less than 50 percent.

A new era of fiscal restraint that began in the early 1990s brought total public debt back down from 49.4 percent of GDP at the end of fiscal 1993 to 33 percent by the end of fiscal 2001. But the course was again reversed when tax cuts were adopted in 2001, 2002, and 2003, accompanied by military action in both Afghanistan and Iraq. Total public debt was equal to 37 percent of GDP by the end of 2007 and 40 percent by the end of 2008.

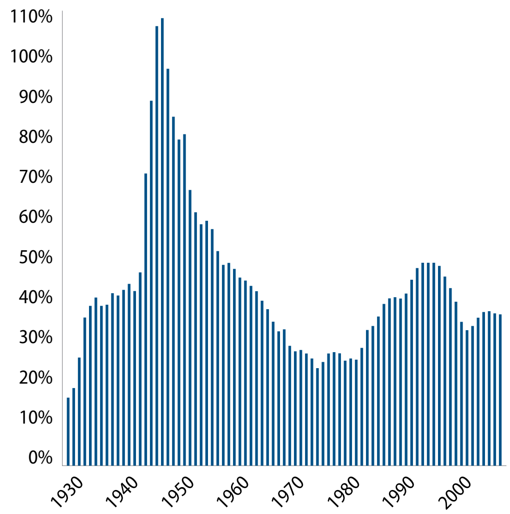
Where we stand today

The United States is not in as good of financial shape as it might be or as many might argue it ought to be. But our government's financial condition is much better than it was at other points in our history, most particularly in the decades following World War II. Our public finances are also in much better shape than those of most other developed economies.

An analysis published by the Central Intelligence Agency earlier this year showed that Japan's public debt equals 182 percent of that country's GDP while Italy's equals 106 percent, Belgium 86 percent, France 66 percent, Germany 65 percent, and Canada 64 percent. That same study measured the U.S. public debt at only 37 percent for the same period ending in 2007. The U.S. economy, in short, can handle the strain of increased deficit spending.[4]

U.S. public debt as a percentage of GDP

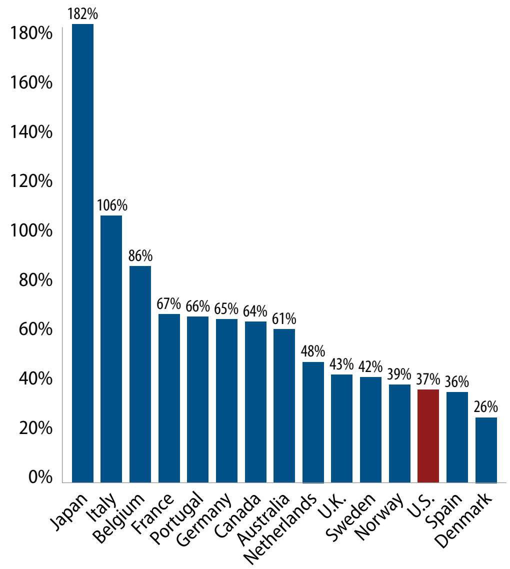
1929 to 2007



Source: Historical Statistics of the United States, "Colonial Times to 1970, Part 1 Chapter F," available at http://www2.census.gov/prod2/statcomp/documents/CT1970p1-07.pdf.

Public debt as percentage of GDP

For 15 developed countries in 2007



Source: Central Intelligence Agency, "The World Factbook 2008," available at https://www.cia.gov/library/publications/the-world-factbook/.

What are the current limits on U.S. borrowing?

But who will loan the federal government all of the money necessary to finance large deficits? Will our nation's creditors continue to loan sufficient amounts as the federal public debt grows larger? The answer is that much of the world seems not only willing but anxious to invest in U.S. Treasuries, which are seen as the safest security that an investor can own in a risky world economy. A major problem now faced by those trying to raise capital in the private sector is that investors would prefer to own U.S. Treasuries even if they yield a third or even a quarter of the return offered by borrowers in the private sector.

Investors around the world are ready to cash in their foreign bank deposits, corporate bonds, stocks, and even tax-free municipal bonds in favor of U.S. Treasuries despite yields that are near their all-time lows. That confidence would surely erode if the size of our total public debt began to approach the size of our annual GDP. But at 40 percent of GDP we are not close to that situation. Even with several years of very healthy infusions of deficit-financed stimulus we will not reach that point in the near future.

A $1 trillion-dollar federal budget deficit in 2009, for example, would push the public debt to about 47 percent of GDP, and a $2 trillion-dollar deficit will push it to only about 53-percent levels—only a few percentage points above where it was in the early 1990s. That would leave significant room for additional deficits in subsequent years and still maintain a debt-to-GDP ratio far better than most other developed economies and far better than we ourselves had in the years following World War II.

We may not need economic stimulus of that magnitude. And the federal government may not be capable of managing a stimulus package of that magnitude. But if it were necessary to engage in that level of stimulus, we could do so and recover in a relatively rapid manner once the economy had regained its footing, leading to a return in the decline of our total public debt relative to GDP growth.

The importance of fiscal discipline

This brief history of our nation's struggle with fiscal policy over the past 75 years does not document the view famously attributed to Vice President Dick Cheney, who said, "deficits don't matter."[5] Quite to the contrary, constraining the public debt is clearly an important goal because it provides the nation with the latitude to take the steps necessary to correct a failing economy when such steps become necessary.

The choices we have today might be quite different had the deterioration in the size of our debt relative to the size of our economy that took place in the 1980s and early 1990s continued for the remainder of the 1990s. Between 1981 and 1993 our debt as a share of GDP grew from 25.8 percent to 49.4 percent. If it had continued on that trajectory through the early part of the current decade, reaching 75 to 85 percent of GDP, we would face considerably fewer options.

But if we had exercised stricter fiscal discipline over the past eight years under President George W. Bush, then we would be in a somewhat stronger position to meet a prolonged economic crisis. What's worse, deeply inept monetary policy and economic oversight so far this decade leaves the incoming Obama administration and 111th Congress facing an economic crisis different from any since the Great Depression.

Understanding our predicament: "This is not your father's business cycle"

In July 2004, Paul Krugman spoke at a symposium organized by the Center for American Progress on the prospects of the current economic recovery. Krugman told the group, "This is not your father's business cycle. It's your grandfather's business cycle." He likened the current business cycle to the 1920s or "the panic of 1873, when they built more railroads than they actually had traffic for." He explained:

> *We're all a little bit at sea here because this is not a typical economic recovery, not a typical post-war economic recovery, anyway… The main source of weakness here... is that wages and salaries of all kinds, including salaries of highly paid people are lagging far behind economic growth, so disposable incomes is not rising nearly as fast as the economy, which makes you wonder whether consumer demand will keep on growing fast enough to sustain this rate of growth. I think the answer has to be—I know the background paper that CAP has produced says this—consumer demand is not going to keep on growing at recent rates. It might even turn down because there is a lot of build up of consumer debt because the home refinance boom is not going to keep delivering cash into people's hands.*[6]

The CAP background paper referenced by Krugman argued that despite the confidence being expressed by the Bush administration and the Federal Reserve, the economy was already in serious trouble.[7] That trouble was rooted in two problems.

- Wage growth had fallen far behind the growth in worker productivity. That meant that while the economy could produce more goods and services, there was not sufficient purchasing power to consume them. That trend has continued. Since 2000, worker productivity has increased 20 percent while wages have increased by less than 1 percent.

During the same period, employment growth has not kept pace with population growth and so household incomes have fallen. Without growth in income, consumers were unable to make the increased purchases necessary to sustain economic expansion.[8]

- The policy chosen by the Bush administration and the Federal Reserve to remedy this problem was over time certain to fail, leaving the U.S. economy in far worse shape. Lowering interest rates below the rate of inflation provided powerful incentives to borrow and spend. It encouraged spending on products ranging from cars to vacations and had a particularly powerful impact on housing. At the same time, flat to declining real wage growth (after factoring in inflation) led consumers to pay for more and more of their everyday needs—from college tuition to medical expenses to grocery bills—with credit. These policies continued to drive an overheated housing market and fostered a refinance boom that sucked trillions of dollars out of home equity and into cash to generate an unsustainable level of consumer demand. Virtually all of the economic expansion that occurred in 2002, 2003, and early 2004 was the result of consumer spending and that was entirely financed with debt.[9]

A third problem not yet visible at the time of the Center's 2004 symposium was this: The mortgage refinance and housing boom had fully penetrated the universe of qualified borrowers and buyers, prompting financial institutions that had made billions in profits off that boom to press their mortgage contracts and notary stamps upon increasingly less creditworthy borrowers. Mortgage and investment bankers knew plenty of institutional investors in home mortgages who were naïve enough to believe that lending to less-than-qualified borrowers was not an unacceptable risk. And these bankers were certain that they could find borrowers who could make at least enough payments to allow them to resell the new mortgages. Life was good.

By the summer of 2007, however, the consequences of this unsustainable demand on the credit markets started to take its toll. As the Fed gradually restored interest rates to more normal spreads above the rate of inflation, housing values stalled. At the same time it became increasingly apparent that hundreds of thousands of individuals had been granted mortgages with little or no capacity to repay them. Confronted with a growing crisis not only in real estate but in banking as well, the Fed began a series of dramatic rate cuts in late 2007.

No more help from the Fed!

Perhaps the most troubling difference between the current downturn and its post-World War II counterparts is that the Federal Reserve over the past 15 months has used up virtually all of its leverage to bring about an economic recovery—and yet the recession seems to have only started to gain momentum. The mid-December 2008 cut in the federal funds rate to zero leaves the Federal Reserve with no more bullets in the chamber—at least as far as the central bank's main tool, interest rate policy, is concerned.[10]

The consequences could be devastating if recent economic history is any guide. The National Bureau of Economic Research identifies ten periods of economic decline since 1950. Among the more serious of those were recessions identified by NBER as beginning in 1953, 1957, 1981, and 1990. All of these downturns were largely the result of the Federal Reserve deliberately slowing economic expansion by limiting the availability of credit. In each of these prior recessions, economic expansion was restored once the Fed relaxed the supply of money and allowed interest rates to fall.[11]

The recession that began in 1973 is one of the clearest examples. Early in 1973 the Fed began to worry that the economy was expanding at too rapid a pace. Employment had been expanding at a rate of 3 percent a year and the level of unemployment had dropped below 5 percent. Beginning in January that year, steady increases were imposed in the federal funds rate, lifting it from 5.75 percent in January to 11 percent in August. Inflation concerns were further heightened by the Arab oil embargo, which occurred in October 1973 and resulted in the Fed eventually raising the federal funds rate to 13 percent by the following summer.[12]

The result of these shifts in monetary policy was a drop in GDP from 5 percent real growth (after accounting for inflation) in 1973 to a minus 0.5 percent in 1974. Growth remained flat in 1975 as the Fed began a gradual reduction in rates. By April 1976 the Fed had cut rates to 4.75 percent and economy came back strongly with 5 percent growth.

Simply because these downturns were the result of deliberate policymaking does not mean that they were not painful. Four million people lost their jobs between late 1973 and mid-1975, pushing unemployment to 9.0 percent. There was heated debate at the time whether tight money was good medicine, but it was at least somewhat reassuring to all that the downturn could be reversed when a consensus formed that joblessness was a bigger problem than rising prices. While Congress attempted to soften the impact on the unemployed during these periods, there was no real impetus for serious fiscal stimulus. It would have simply been a case of the government fighting with itself over the direction of the economy.[13]

During the other previous downturns the Fed displayed similarly significant latitude for restoring economic growth. During the 1981 recession the federal funds rate was cut from the 20-percent levels it had reached shortly before the beginning of the recession in July of that year to under 10 percent by the middle of the following year. During the 1990 recession the federal funds rate fell from 8 percent at the outset of the downturn to 3 percent by the fall of 1992.[14]

The 2001 recession was somewhat different in that rates were only at 5.5 percent as the business cycle peaked in March of 2001. But the economy was already well into recovery when the Fed made its last rate cut to 1 percent in June of 2003.[15]

The current crisis is quite different. The Federal Reserve began slashing the federal funds rate a year ago last September—three months before the official beginning of the current recession. It was cut from 5.25 percent in September 2007 to 2.0 percent in April of 2008, and to 1.0 percent this past October and then 0.5 percent in mid-December. Now, as more and more layoff notices are announced, the Federal Reserve has the nation's monetary policy pedal to the metal and so far the country is still rolling backwards. Federal Reserve Chairman Ben Bernanke is looking for new and innovative monetary interventions to ease credit constrictions, but it is clear that the bulk of the lifting will now be left to tax and spending policy.[16]

The financial crisis has only recently started to affect the real economy

Economic downturns are characterized by a downward spiral as disruptions in one segment of the economy spread to other segments. The impact on the broader economy causes a second wave of problems in the segment where the downturn originated and the process of deterioration continues to drive economic activity further downward.

The problem that began in our overextended housing market has caused extraordinary damage to the financial sector. That in turn has restricted the availability of lending, which has driven real estate prices even lower, increased foreclosures, and placed further stress on financial institutions. That process continued for nearly a year before it began to seriously infect other sectors of the economy beginning in early 2008.

Now, nearly a year later, the economy is in much worse shape. *Forbes* magazine, which tracks layoff notices, identified 65 announcements made by the nation's 500 largest companies between November 1 and December 19, 2008, reporting plans for future payroll reductions totaling 197,000 jobs. But the most disturbing aspect of these reports is that far more notices and job reductions were announced in the first three weeks of December than in the entire month of November. The number of notices per week in November was 4.75, but in the first three weeks of December that number more than tripled to 15.3 per week.[17]

Job losses jumped from 18,000 per week in November to 42,000 per week in December. Perhaps equally telling were the industries affected. Nearly four in five job-loss announcements in November were in the banking and financial services sectors. By December the layoffs had spread to other segments of the economy, with banking and financial services representing only slightly more than 2 in 5 jobs lost. Industries represented in the early December data that did not appear in November included software, food processing, capital goods, and chemicals.[18]

Typical among them was this December 8 announcement by DuPont Chemical as reported in *The Wall Street Journal*. The announcement was of particular note because chemicals are often viewed as a bellwether for the broader economy:

DuPont Co. said Thursday it is cutting thousands of jobs and slashed its 2008 earnings forecast as the global economic downturn shrinks orders for its products. The chemical manufacturer said it experienced "a sharp downturn in demand" in the fourth quarter due to an accelerating decline in industrial production and collapsing consumer spending. In response, the company is embarking on a broad cost-cutting effort that it expects will boost its cash flow and earnings. DuPont said it will cut 2,500 jobs, or about 4 percent of its work force, mainly at sites that make products for the auto and housing markets in the U.S. and Western Europe.

The company is also dismissing 4,000 contractors and temporarily halting production at 100 plants. The plan also includes a 10 percent to 20 percent reduction in capital spending and cutting costs by $600 million next year. The company expects its efforts to result in savings of $730 million and increase earnings by $130 million in 2009. "We must get our costs and cash in line with current reality," said DuPont Chairman and Chief Executive Charles O. Holliday Jr.[19]

All indications are that we are only in the beginning phases of such announcements. As corporate losses mount and the incomes of millions of families begin to dwindle, the consequence for housing and financial institutions is clear. Job losers who have been in good standing on their mortgages may find it impossible to make payments. Further foreclosures will drive home prices lower. Banks and financial institutions will be faced with greater problems from not only the mortgage side of their businesses but from car loans and credit cards as well.

As producers shave payrolls they will lose more customers, and as they lose customers they will continue to shave payrolls. At the same time, more and more households will begin intensively saving and avoiding all unnecessary purchases in fear that their bread winner(s) may at some point lose their jobs, and as they save more and consume less the prospect that those jobs will be lost increases. How far this cycle continues is a matter of psychology as much as econmics.

November-December layoff announcements by 500 largest U.S. companies

Layoffs during all of November			
Date	**Company**	**Total laid off**	**Industry**
11/4/2008	Hartford Financial Services Group	500	Finance
11/6/2008	Mattel	1,000	Household
11/6/2008	MGM Mirage	400	Leisure
11/6/2008	Omnicom Group	145	Media
11/7/2008	Ford Motor	2,600	Durables
11/11/2008	AK Steel Holding	800	Materials
11/12/2008	Textron	665	Conglomerates
11/12/2008	Morgan Stanley	2,000	Finance
11/12/2008	Liberty Media	910	Retailing
11/12/2008	Applied Materials	1,800	Technology
11/14/2008	Sun Microsystems	6,000	Technology
11/17/2008	Citigroup	52,000	Banking
11/20/2008	Boeing	800	Aerospace
11/20/2008	Bank of New York Mellon	1,800	Banking
11/21/2008	Western Union	200	Business Serv
11/21/2008	Berkshire Hathaway	215	Finance
11/21/2008	International Paper	550	Materials
11/24/2008	BlackRock	10	Financials
11/25/2008	Dana Holding	50	Durables
Full Month	Total	72,445	

Layoffs during first 3 weeks of December			
Date	**Company**	**Total laid off**	**Industry**
12/1/2008	JPMorgan Chase	9,200	Banking
12/1/2008	PepsiCo	87	Food
12/2/2008	United States Steel	4,175	Materials
12/3/2008	United Technologies	350	Conglomerates
12/3/2008	Jefferies Group	300	Financials
12/3/2008	Gannett	2,000	Media
12/3/2008	Viacom	850	Media
12/3/2008	Adobe Systems	600	Software
12/3/2008	Freeport-McMoRan Copper & Gold	1200	Materials
12/4/2008	E.I. du Pont de Nemours	2,500	Chemicals
12/4/2008	General Electric	500	Conglomerates
12/4/2008	Steel Dynamics	65	Materials
12/4/2008	Windstream	170	Telecom
12/4/2008	AT&T	12,000	Telecom
12/5/2008	Cummins	500	Capital Goods
12/5/2008	General Motors	7,758	Durables
12/5/2008	Legg Mason	200	Financials
12/5/2008	Cablevision	100	Media
12/5/2008	Staples	140	Retailing
12/8/2008	Dow Chemical	5,000	Chemicals
12/8/2008	3M	2,300	Conglomerates
12/8/2008	Anheuser-Busch	1,400	Food
12/8/2008	Wyndham Worldwide	4,000	Leisure
12/9/2008	Praxair	1,600	Chemicals
12/10/2008	Mohawk Industries	105	Durables
12/10/2008	Procter & Gamble	320	Household
12/11/2008	Whirlpool	250	Durables
12/11/2008	Bank of America	35,000	Banking
12/12/2008	Las Vegas Sands	11,216	Leisure
12/12/2008	Masco	500	Construction
12/12/2008	International Paper	2,050	Materials
12/13/2008	Berkshire Hathaway	345	Finance
12/15/2008	Merrill Lynch	400	Financials
12/15/2008	Charles Schwab	100	Financials
12/16/2008	CBS	30	Media
12/17/2008	Ryder System	3,100	Services
12/17/2008	Western Digital	2,500	Technology
12/17/2008	Aetna	1,000	Health Care
12/17/2008	Parker-Hannifin	46	Capital Goods
12/17/2008	Bristol-Myers Squibb	3,700	Pharmaceuticals
12/18/2008	Caterpillar	814	Capital Goods
12/18/2008	Omnicom Group	3,145	Media
12/19/2008	Genworth Financial	1,000	Insurance
12/19/2008	Eaton	87	Capital Goods
12/19/2008	Electronic Arts	1,000	Software
12/19/2008	Sovereign Bancorp	1,000	Banking
3 Week	Total	124,703	

Source: Klaus Kneale, Layoff Tracker, *Forbes Magazine*, available at http://www.forbes.com/leadership/2008/11/17/layoff-tracker-unemployement-lead-cx_kk_1118tracker.html.

Metrics of government stimulus

Just as priming a water pump fills the gap between the pump and the underground water supply, economic pump priming fills the gap between an economy's declining demand for goods and services and its capacity to produce them. Demand is generated by four broad components of the economy: consumer purchases; investment by businesses; government expenditures (federal state and local); and net exports.

Consumer purchases account for about 70 percent of total demand while business investment accounts for about 14 percent. Virtually all indications are that both are sinking rapidly. "The contraction in spending during the current downturn is likely to prove more severe than in any downturn since the Great Depression," according to Bruce Kasman, the chief economist at JPMorgan Chase & Co.[20] A major component of consumer demand is retail sales. November 2008 was the fifth straight month that retail sales in the Untied States declined. November sales were 7.4 percent below the level of sales last November, and most forecasters expect a much sharper decline in overall consumer demand following the holidays.[21] At the same time, businesses are not only shedding workers to save cash but cutting back on planned investments, too.

Already many forecasters expect the decline in consumer purchasing and business investments to equal between 8 percent and 10 percent of GDP by the later part of 2009, with concerns that those the numbers could get worse after that. (Goldman Sachs was projecting 9.1 percent even before the November employment report). Such a decline would of course cause further deterioration in employment, purchasing power, and business solvency. To offset that drag, the federal government would need to generate demand equal to about $1.3 trillion to $1.5 trillion.[22]

The premium for increasing confidence

It is not necessary, however, for the size of a stimulus package to equal the expected decline in demand if government takes decisive action that increases the confidence of consumers and business. Some believe that a quarter to a third of the decline would not occur if a credible plan is in place soon enough. In other words, a strong package may have to generate only about $1.0 trillion of the $1.3 trillion to $1.5 trillion expected shortfall.

Secondly, at least a portion of the money within a stimulus package may be spent more than once during the course of the year. If the government, for instance, increases expenditures to hire a worker to repair a school, that worker will spend a portion of his or her earnings to buy food, make house or rent payments, and purchase other items that will create additional jobs.

Economists call this the multiplier effect. How large that effect is and how much specific types of spending or tax cuts contribute to it has long been a matter of strenuous disagreement among those who study the issue. Generally speaking, economists have lowered their estimate of the size of the multiplier in the U.S. economy for any type of economic activity due in part to globalization—the likelihood that a significant portion of any increase in income will be spent on foreign-made products. As the rate of savings increases the size of the multiplier also goes down.

While some argued in years past that expenditures might generate economic activity amounting to four times the size of the initial government expenditure, few people now believe that the correct multiplier for government expenditures in general is less than two.

Importantly, both expenditures and tax cuts stimulate the economy, though expenditures stimulate more activity because they have a higher multiplier effect than tax cuts, and some categories of spending are likely to have a higher multiplier than others. Similarly, some tax breaks are likely to stimulate more activity or have a higher multiplier than others.

These considerations are important to anyone designing an economic stimulus package who wants to reach a specific level of stimulus while reducing to a minimum the size of the overall spending package. A recent analysis of stimulus proposals by the economic forecasting unit at Goldman Sachs argued that a stimulus package containing only tax cuts would have to be 50 percent larger than a stimulus package made up of spending items. In other words, $900 billion in tax cuts would provide no more stimulus than $600 billion in spending outlays.[23]

This is because, in Goldman Sachs's view, a large portion of tax cuts such as those provided in the stimulus package adopted earlier in 2008, went directly to savings or debt reduction or to purchase imported goods. When the government gives tax breaks of a few hundred dollars to individuals who have yet to be affected by job losses, then it is likely that a large portion will go to paying down credit card debt, increasing personal savings, or purchase of foreign-made products, in which case there is little additional boost to the U.S. economy.

Slow spending

One of the most intractable and least appreciated problems in using government spending as a form of economic stimulus is the slow pace at which funds are expended under many worthwhile government programs. It is not enough for Congress to appropriate the money and the president to sign the spending into law. No jobs are created until the money is apportioned to the appropriate agency, plans for the expenditure are finalized, a contract or grant award is made, and the contractor begins work and starts submitting vouchers for expenditures. This can happen rather quickly or require an extraordinary amount of time depending on the program and the manner in which it is administered.

If a decision is made to provide federal economic relief to prevent layoffs in state and local governments, then those expenditures will take place almost immediately. But if the government decides to replace a bridge, it can take a great deal of time to design the bridge, perform community and environmental impact studies, and then months more to select a contractor. Once those steps are complete the actual construction phase will take several years.

The Congressional Budget Office and the White House Office of Management and Budget are both charged with making regular estimates as to how quickly money contained in appropriation bills will be spent. The "spend out" estimates provided by the Congressional Budget Office for specific activities funded in the Job Creation and Unemployment Relief Act of 2008, H.R. 7110—the economic stimulus package that Congress attempted to get the Bush administration to accept last September—are instructive in understanding how the make up of a spending package can significantly alter the amount of stimulus provided within a specific time period.

H.R. 7110 contained $2.6 billion in increased funds for the Food Stamp program. CBO estimated that all of that money would be spent during fiscal year 2009, which began last October 1. A similar pattern of expenditure was true for a proposal to help states by temporarily increasing the share of Medicaid costs covered by the federal government.[24]

But for other items in the bill, the rate of spending was much slower. The deterioration of sewer and water systems is rated as one of the most pressing infrastructure problems facing the nation by the American Society of Civil Engineers. It is understandable that Congress would want to try to address that problem as part of any job-creating package. But the near-term economic impact of such an effort is remarkably small.[25]

CBO estimates that of the $7.5 billion Congress proposed to spend, only $0.3 billion, or 4 percent, would actually create jobs in the first fiscal year. During the second fiscal year only $1.5 billion, or 20 percent, would be spent. Furthermore, according to CBO $2.5 billion, or more than a third, of the outlays from this appropriation would occur after fiscal year 2012.[26]

Spending for highway projects was also problematic in H.R. 7110. While CBO took into consideration that Congress was limiting the appropriation to only those highway projects with approved contracts from state departments of transportation, the first year spend out of the $12.8 billion proposed by Congress was only $4 billion, or 32 percent. Most of the remainder, $5.8 billion, was expended in the following year, but 23 percent of the funds would not actually flow to contractors until the follow three fiscal years.[27]

The incoming 111th Congress is now looking at sending a stimulus package to the President in January instead of September, which means the CBO assumptions at the time of this budget scoring for H.R. 7110 on many of these outlays would slip further into future years, and that close to half of the funds appropriated for such highway projects would still be in the U.S. Treasury when the next Congress convenes two years from this January.

There are strong arguments for making these types of investments, and there is no doubt that they will provide greater benefits in the long term than some proposed spending items that will create jobs more rapidly. It is also true that we are probably in for an extended recession and a lengthy recovery. But that does not change the simple mathematics we confront in dealing with the current crisis—the need for large sums of money to flow into the economy almost immediately.

To the extent that long-term investments are included in any package they should not be measured as stimulus based on the total appropriated but rather on the "spend out" during the period of time that the stimulus is required. Their inclusion will require the overall size of the package to be larger. And they will elevate government outlays well into the future when good policy will dictate that we should be trying to trim deficits and restore fiscal balnce.

CBO scoring of spending rates in H.R. 7110

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Clean water										
Budget authority	7,500	0	0	0	0	0	0	0	0	0
Estimated outlays	300	1,520	2,250	870	490	170	98	49	32	20
	4.0%	20.3%	30.0%	11.6%	6.5%	2.3%	1.3%	0.7%	0.4%	0.3%
Highway construction										
Budget authority	12,800	0	0	0	0	0	0	0	0	0
Estimated outlays	4,096	5,760	1,536	1,152	256	0	0	0	0	0
	32.0%	45.0%	12.0%	9.0%	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Flood control and other water resources										
Budget authority	5,300	0	0	0	0	0	0	0	0	0
Estimated outlays	2,715	1,375	370	265	175	75	0	0	0	0
	51.2%	25.9%	7.0%	5.0%	3.3%	1.4%	0.0%	0.0%	0.0%	0.0%
Other infrastructure										
Budget authority	5,600	0	0	0	0	0	0	0	0	0
Estimated outlays	1,095	1,937	1,320	910	300	38	0	0	0	0
	19.6%	34.6%	23.6%	16.3%	5.4%	0.7%	0.0%	0.0%	0.0%	0.0%
Subtotal										
Budget authority	36,900	0	0	0	0	0	0	0	0	0
Estimated outlays	9,855	12,294	6,604	4,418	1,221	283	98	49	32	20
	26.7%	33.3%	17.9%	12.0%	3.3%	0.8%	0.3%	0.1%	0.1%	0.1%
Unemployment compensation and job training										
Budget authority	6,490	0	0	0	0	0	0	0	0	0
Estimated outlays	6,115	250	125	0	0	0	0	0	0	0
	94.2%	3.9%	1.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Temporary increase in Medicaid matching rate										
Budget authority	12,190	2,475	5	5	5	5	5	5	5	5
Estimated outlays	12,190	2,475	5	5	5	5	5	5	5	5
	100.0%	20.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Temporary increase in food assistance (Food Stampts)										
Budget authority	2,623	30	5	5	0	0	0	0	0	0
Estimated outlays	2,623	30	5	5	0	0	0	0	0	0
	100.0%	1.1%	0.2%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total										
Budget authority	58,203	2,505	10	10	5	5	5	5	5	5
Estimated outlays	30,783	15,049	6,739	4,428	1,226	288	103	54	37	25
	52.9%	25.9%	11.6%	7.6%	2.1%	0.5%	0.2%	0.1%	0.1%	0.0%

Source: Congressional Budget Office, "Estimated Cost of H.R. 7110, The Job Creation and Unemployment Relief Act of 2008, as Introduced on September 26, 2008," available at http://cbo.gov/ftpdocs/98xx/doc9816/hr7110.pdf.

Designing the stimulus package

Recently economists have begun to use the term "uncharted territory" to describe the current condition of the economy. That is perhaps another way of saying that econometric models and other types of forecasts can be expected to be even less reliable than normal. What we do know is that nearly all forecasters have been overly optimistic about the future course of the economy over the past year and have been forced repeatedly to make downward revisions in their projections.

Accurate forecasting requires predictions about human behavior—educated guesses that in the current environment require predicting how people will behave in situations that they have not previously faced. How much will households cut back on spending given the drumbeat of news about layoffs and business failures? How close to the bone will business executives cut their capital spending and work force? These are questions that psychologists may be better prepared to answer than economists.

Even issues that can normally be predicted based on simple math extrapolations have proven problematic. Take, for instance, the conjecture over the November employment report. This can normally be estimated with some degree of accuracy using the number of new claims for unemployment benefits during the week in which the Labor Department survey is conducted. The consensus forecast was for a loss of 300,000 jobs. The most pessimistic among the major forecasters predicted a decline of 350,000 jobs.[28]

The Labor Department, however, reported the loss of 533,000 jobs or 78 percent above the consensus.[29] It would be as reckless of economic policymakers not to consider the prospect that the economic decline may be worse than forecast as it would be for a military commander to fail to weigh the possibility that an adversary may prove to be more resourceful and effective on the battlefield than his intelligence advisors predict.

The Goldman Sachs forecast that spending for personal consumption and business investment may decline by the later part of 2009 by an annual rate of more than 9 percent—indicating a gap between projected consumption and capacity of about $1.3 trillion—is a reasonable place to start. One might reasonably extrapolate that we are headed toward a period by the later part of 2009 in which demand will be somewhere between $1.1 trillion and $1.5 trillion below the level needed to restore growth.

If the more pessimistic end of the range is used for planning purposes, and if we also assume that as much as a third of that decline can be avoided if consumers and businesses believe that government is intervening with sufficient force to reverse the direction of the recession, then an economic stimulus of $1 trillion is necessary. The amount of spending increases and tax cuts necessary to provide that level of stimulus, however, could be less depending on how the package is structured. Assuming that spending could leverage 1.75 times the amount of economic activity as the sums appropriated, and further assuming that tax cuts could leverage 1.2 times the activity of the amount of revenue loss they would generate, then a package of $400 billion in spending increases and $250 billion in tax cuts would achieve the goal.

That level of spending and tax cuts, however, does not deal with several problems. First the federal government may not be able to effectively disperse or manage that much additional spending in a one-year time period. If this proves to be the case, then the overall size of the package and the deficit to be incurred would increase. If only $300 billion in additional stimulus could be managed on the spending side, then tax cuts of $400 billion would be required to reach the stimulus goal—driving the federal budget deficit $50 billion higher, to about $700 billion.

Secondly, some investment programs that may help the economy for many years into the future provide only a portion of their spending during the period in which stimulus will be needed. To the extent those programs make up a major part of the package the amounts appropriated will have to be larger. If, for instance, infrastructure spending of $100 billion were included in the package and the mix of infrastructure programs were expected to spend 30 percent of the sums appropriated within the first 12 months after enactment, then an additional $70 billion in fast spending programs would need to be added to the package to meet the stimulus goal.

The right mixture of taxes and spending proposals is a political as well as policy decision. If there is not support for a package of more than $650 billion in new spending and tax cuts, then it should be weighted heavily to the spending side—and that spending should be almost exclusively on programs that have a rapid spend out. If there is a strong enough desire to see longer-term investments play a significant role in stimulus efforts to permit an increase in the size of the amounts appropriated, then such measures should be included. The bottom line is that a specific amount of money needs to flow into the economy within a specific time period ($650 billion under this analysis) and that amount should not be compromised in order to meet other policy objectives. We are not in a situation that grants us that luxury.

Some of the packages that have been discussed are proposed on a two-year basis. It is realistic to recognize that much of the money that will become available in a stimulus package crafted in January 2009 will be spent in fiscal year 2010 (beginning next October), and that a portion of it will still be available in the following year. But the $650 billion package proposed here would be for only the first round of stimulus. There is a strong likelihood that additional stimulus will be required in 2010, but we can not at this point responsibly predict how large that sum will be or which segments of the economy will be in greatest need of further relief. It is unlikely, however, that the economy would gain enough strength over the course of the next 12 months to permit the government to reduce the stimulus it provides by more than 50 percent.

Finally, it should be understood that the amount of stimulus we are talking about is above the levels of deficit we are already incurring. If one assumes that the deficit would be $900 billion without a stimulus then the package outlined above would push the deficit to something less than $1.6 trillion. This amount cannot be offset by spending cuts or tax increases. A spending increase of $300 billion for domestic relief offset by a spending cut of $300 billion in defense would yield virtually no stimulus at all. The stimulus comes from the federal government borrowing money when other segments of the economy are unable to borrow and spending in ways the create jobs and restore demand.

The necessity of action

We are in a critical period. This crisis is clearly much more dangerous than any we have faced in our lifetimes and the possibilities for consequences more dire than any of us would like to consider are real. But we can greatly reduce those risks with appropriate action of a magnitude that squarely meets the problem and restores confidence in the process. Overwhelming force is a good strategy not only on the battlefield but in economics as well. At this juncture, overwhelming force must come from tax and spending policies—monetary policy options are unfortunately quite limited.

While the political system may have trouble digesting deficits of the size that are needed, one should recall the early years of the New Deal when deficits were constrained to roughly the same levels as those incurred in the last Hoover years, and the economy bumped along with relatively modest improvement in unemployment and growth too weak to allow the government to return to fiscal balance. Ultimately, the public debt as a share of GDP more than doubled in the decade of the 1930s, but too little was done in any one period to bring about a real reversal. Had that happened, a great deal of human suffering could have been avoided during the Great Depression and the public debt might have been lower as well.

Finally, one last consideration that should be weighed in determining the appropriate size of an economic stimulus package—a consideration that also relates to the experience of the 1930s. Great economic problems tend to spawn other social and political problems. High unemployment, poverty, and privation create social chaos and dramatic and sometimes violent political change. Such reactions in the United States are unlikely given the results of our national elections this past November, but how effectively U.S. policymakers manage the current crisis will have profound effects on events around the world. Economic policies that minimize economic damage will also reduce geopolitical risks that may ultimately be equally important to long-term economic recovery and prosperity here at home.

Endnotes

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About the author

Scott Lilly is a Senior Fellow at American Progress who researches and writes about a wide range of areas including governance, federal budgeting, national security, and the economy. He joined the Center in March 2004 after 31 years of service with the United States Congress. He served as clerk and staff director of the House Appropriations Committee, minority staff director of that committee, executive director of the House Democratic Study Group, executive director of the Joint Economic Committee and chief of staff in the office of Congressman David Obey.

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