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Government Stimulus and Economic Recovery:

Why Isn't the Economy Doing Better?

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Introduction

On September 20, 2010, the National Bureau of Economic Research (NBER) announced that the Great Recession that began in December 2007 ended in June 2009, making the 18-month downturn in the economy the longest lasting since World War II. Apart from wondering why it took the NBER so long to declare the **recession** over, the typical response to the news was that the recovery was anemic and the U.S. economy could experience a "double dip"—that is, slip back into recession because of the stubbornly high unemployment rate (stuck in the 9.5-10 percent range) and sluggish growth in GDP (estimated at only 1.5-2 percent over the spring and summer months, April-September). Such assessments, given the mid-term elections, fuel political debate over the best course forward, including the possible need for another government stimulus package, extending the duration of some or all of the tax cuts passed during the administration of President George W. Bush, and what, if anything, to do about the skyrocketing federal budget deficit. (For a deeper understanding of the current situation, read previous articles on unemployment and the budget deficit published on www. ja.org.)

Recession: The U.S. based National Bureau of Economic Research defines a recession as "a significant decline in economic activity spread across the economy, lasting more than a few months."

To convey context and perspective, this article will (1) provide a primer on the long time lags, that is, the collective passage of time embedded in the design, implementation, and less than instantaneous effectiveness of fiscal and monetary policies; (2) explain how such lengthy economic lags and the business cycle interact with the political and election cycles, and (3) assess the economic impact of the major fiscal policy interventions that have been enacted over the past two years. Taken together, such considerations explain why policymaking is so challenging, and where policy actions and the economy are most likely headed over the coming six to 12 months.

A Primer on the Policy Process

At first glance, the challenges that face monetary policymakers at the Federal Reserve System (whose actions influence the level of interest rates and the availability of funds in the economy) or the fiscal policymakers (the Congress and the president who together decide on government tax and expenditure policy) do not seem that complicated. Compare the expected performance of the economy, as reflected in economic forecasts, to the goals for the economy—

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stable, sustainable growth in **real GDP**, a "low" unemployment rate, and a "low" rate of inflation. (The best measurement of these goals and what constitutes "low" are separate, important issues beyond the scope of this article.) If the economy is expected to be close to meeting the aforementioned goals, then leave policy unchanged. If economic growth is expected to falter, with unemployment increasing, then stimulate the economy by cutting taxes, increasing spending, and lowering interest rates. The reasoning is so simple and straightforward you might wonder how policymakers could ever go astray. However, any one of them will tell you making policy is both difficult and frustrating, with problems and pitfalls in all directions.

Real Gross Domestic Product (GDP): The best measure of the level of annual economic activity in an economy; equal to total spending on goods and services by domestic consumers, businesses, and governments, plus spending on domestic goods and services by foreigners (that is, exports), minus imports.

Assessing the Economic Situation

The basic approach to gauging the health of the economy is through various statistical methods and models, judgment based on historical experience, and incoming data on such things as retail sales, industrial production, consumer confidence, business profits, housing, unemployment, economic growth in the rest of the world, and consumer prices. These and a host of other data are used to estimate the current state of the economy and to forecast the real GDP, inflation, and unemployment for the next 12 to 24 months. Because forecasting is an imperfect science prone to large errors, policymakers have a strong tendency to focus on data showing current economic conditions and thus to discount forecasts based on statistical models. However, the data published in a given month are actually for what was happening in the economy during the previous month. Using current data as the focal point to judge where the economy is and where it's going is akin to looking in your car's rear-view mirror to guide your driving!

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But, let's not be too harsh. The focus on current economic data is not that surprising given the media attention and accompanying political pressures that can bear down on policymakers. For example, if the current data on unemployment suggest the economy is growing slowly, policymakers will be pressured to stimulate the economy. They will be urged to boost aggregate demand for goods and services even if forecasts suggest the economy will strengthen in coming months without further policy action. Critical to understanding the policymaking process are nearsightedness (a focus on current data) and impatience, a product of the lack of confidence in forecasts and the electoral cycle (keep in mind that all members of the House of Representatives and one third of senators stand for election every two years).

Recognition lag: In the policy-making process, the time between a significant and unexpected change in the economy's performance and policymakers' recognition of that change.

Generally, as data reports are published, policymakers ask themselves two basic questions: Are the data consistent with our economic outlook and desires, so that no change in policy is needed? Conversely, do the data signal that the economy's performance deviates so markedly from what was expected and desired that a policy change is called for? In reality, the process of assessing incoming data is more difficult than one would imagine. The problem is that many monthly data releases are quite volatile, what statisticians call irregular variance or simply "noise." As a result of potentially large month-to-month fluctuations, it is often argued that it is necessary to have three months of data or more in hand before underlying cyclical movements in an individual data series might become evident. Imagine that the data show retail sales are up one percent in January, down two percent in February, and up two percent in March—it would be difficult to conclude much of anything from these data alone.

Analysts encounter another problem when they try to generalize from individual data series, such as retail sales, to the economy as a whole. The noise in an individual series may cause a collection of series to transmit conflicting signals on the underlying strength of the economy. For example, the data for September 2010 retail sales, released on October 15, showed growth of 0.6 percent over August sales (7.2% at an annual rate; 12 x 0.6 = 7.2). This suggests spending by households might be picking up. However, the report on unemployment for September, released on October 8, indicated that total nonfarm employment fell by nearly 100,000 workers, suggesting continuing weakness in employment. Here again, if the economy is in fact deviating from its desired track, it will usually take several months of data releases covering the full spectrum of the economy's performance before ambiguities in the monthly data are resolved. These same considerations help to explain why it takes the NBER so long to decide if the economy has slipped into a recession or entered into a recovery.

In sum, policymakers need time for information to cumulate in a manner that allows them to recognize that a change in the economy's performance has occurred. The time between a significant and unexpected change in the economy's performance and policymakers' recognition of that change is called the **recognition lag** in the policy-making process.

From Assessment to Action

As evidence begins to accumulate that the economy is deviating significantly from its desired path, a consensus develops among policymakers that their course of action needs to be altered. But what exactly should be done? Should the Federal Reserve act or should Congress and the president? How large should the adjustment in policy be? Should taxes be changed, or government spending, or both? Should individual income taxes be modified or business taxes, or both? When should the policy change take place? Should the changes be phased in or be done all at once?

Policy lag: The time between the point when the need for action is recognized and the point when an adjustment in policy is decided on and set in motion.

Not surprisingly, finding the right answers takes time. Partisan bickering, as well as legitimate questions about the best way to proceed, can paralyze the policy-making process. As a result, some analysts argue that policymakers often do too little too late. Whatever the outcome, the process includes a **policy lag**, the time between the point when the need for action is recognized and the point when an adjustment in policy is decided on and set in motion.

From Action to Impact

When policymakers act, does the economy respond immediately? Usually, the answer is no. The policy action(s) will set in motion a series of adjustments in the behavior of businesses and consumers that will gradually alter the performance of the economy relative to what it would have been without any new policy actions. To illustrate, if the economy is in a recession and the government cuts individual income taxes, households might not immediately go out and spend more on goods and services, thereby helping to revive the economy. Instead, with unemployment high and consumer confidence low, households might pay off credit card debt or save a significant portion of the extra take-home pay. In either case, the stimulus provided to the economy in months following the tax cut could be rather small. Similarly, if actions by the Federal Reserve resulted in a large drop in interest rates, this too might not be enough to spur consumers or businesses to immediately borrow funds to increase spending. Over time, however, as confidence gradually improves, and fears of rising unemployment subside somewhat, consumers begin to feel comfortable enough with their lower-levels of debt to spend more.

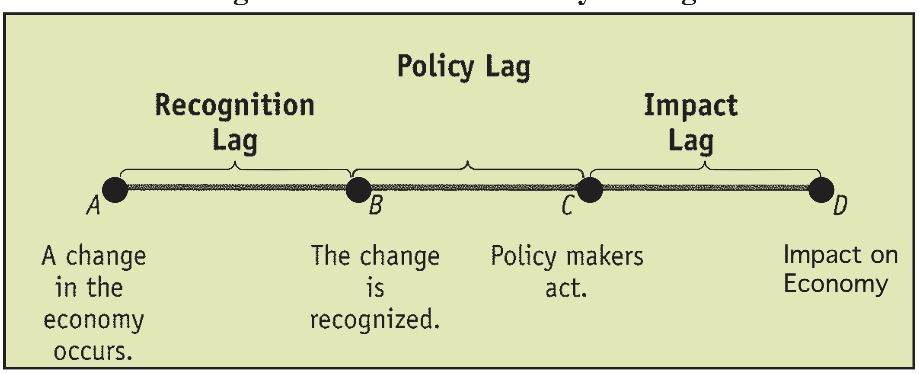
Common sense and historical experience teach us that the economy's reaction to a change in policy is gradual rather than instantaneous. The result is an **impact lag**, that is, the time between when an action is taken and when that action (or set of actions) has a significant impact on real GDP, unemployment, and inflation. How much time you ask? While the answer depends on many things, including the specific actions undertaken, available research suggests that significant effects generally show up after six months or so and continue to build for a year or two. To illustrate, the major policy actions passed in early 2009 that were designed to revive the economy are discussed below in greater detail.

Impact lag: The time between when an action is taken and when that action (or set of actions) has a significant impact on real GDP, unemployment, and inflation.

Exhibit 1 provides a summary of the lags discussed. Clearly, taking into account the time lags involved in recognizing the need for action, deciding how to respond, and allowing for the impact of the actions on the economy, helps us better understand some of the challenges in policymaking. In addition, as in all endeavors, honest mistakes can be made, analysis can be faulty, and unexpected events beyond policymakers' control can occur.

Exhibit 1

Time Lags Embedded in the Policymaking Process



The economy begins to need corrective action at point A, but the need is not recognized until point B, some months later. The time that elapses between point A and point B is called the recognition lag. Between point B and point C, policymakers think about what actions to take and reach a decision. The time that elapses between point B and point C is called the policy lag. Once action has been taken at point C, it takes time before the economy's performance is materially affected. The distance from point C to point D represents this impact lag.

Did the Economic Stimulus Plan Work?

In February 2009, the **American Recovery and Reinvestment Act** (ARRA), better known as the fiscal stimulus plan, was signed into law. The first thing to note is that it was passed by the Congress and signed by the president about 13 months AFTER the recession began in December 2007. Thus, as the discussion above suggests, it took fiscal policymakers a long time to recognize there was a need for action and then to develop a consensus on what to do. The ARRA had a little something for everyone—individual income tax cuts, homebuyer tax credits, direct purchases of goods and services by the federal government, funds for state and local governments to build and repair roads and highways and fund other projects, extensions to the unemployment insurance program, and various reductions in business taxes.

Of course, other agencies also were acting to refloat the economy and repair the damage to the financial system. The U.S. Treasury and the Federal Reserve provided funds directly to major financial institutions to prevent further failures and unclog financial markets. At the same time, the Congress overhauled the regulatory environment governing the behavior of financial institutions. The Federal Reserve injected a massive volume of funds into the economy and interest rates fell to historic lows. In fact, because the Federal Reserve's policymaking body meets every 6-8 weeks behind closed doors and without TV cameras filming, the Fed typically can react to emerging economic developments much faster than the Congress and the president. Hence, it should not be surprising that the Fed took action to lower interest rates, and cushion the economic downturn throughout 2008, well before fiscal policymakers acted.

American Recovery and Reinvestment Act of 2009: Passed by the Congress and signed by President Obama in February 2009. The aims of the act were (1) To preserve and create jobs and promote economic recovery; (2) To assist those most impacted by the recession; (3) To provide investments needed to increase economic efficiency by spurring technological advances in science and health; (4) To invest in transportation, environmental protection, and other infrastructure that will provide long-term economic benefits; and (5) To stabilize state and local government budgets in order to minimize and avoid reductions in essential services and counterproductive state and local tax increases. In all, the bill provided approximately $800 billion to stimulate the economy.

The President's Council of Economic Advisors estimated the massive $800 billion fiscal stimulus plan would reduce the unemployment rate by mid-2010 to a level around 7.5 percent by creating or saving three- to four-million jobs that otherwise would have been lost. Many questioned such estimates at the time, as various provisions of the ARRA were being discussed and debated. Some thought the stimulus too large, others thought it too small, and many debated the effectiveness of various individual provisions of the act. As we know, the bill was adopted, but the unemployment

rate rose in subsequent months and has remained unrelentingly high, with the most recent report placing the rate at 9.6 percent for September 2010[1].

Fiscal Policy Multipliers: The increase in output (GDP) per dollar of government spending or tax cut.

Were the stimulus and other policy actions successful? Or, does the failure of the unemployment rate to decrease significantly suggest all measures failed? The honest answer is that we don't know for sure, because there is no certain way to know how poorly the economy would have performed without the fiscal stimulus and thus no way to know how high unemployment would have been if policymakers had done nothing. The consensus among most economists, however, is that, taken together, the fiscal stimulus, and the Federal Reserve actions, financial support, and reform did in all likelihood begin to fuel the recovery. After all, real GDP has risen for five consecutive quarters, after falling for about 18 months. Keeping this conclusion in mind, let's delve deeper into the effectiveness of the fiscal stimulus package and why it may have fallen short of accomplishing all that was envisioned at the time.

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As President Obama and the Congress began to recognize the need for action, the ensuing political and economic debates centered around the timing of possible actions, the size of actions, and which areas of the economy should be targeted for assistance, including housing, autos, the poor, the unemployed, the retired, and the like. In the background, helping to fuel and guide the discussions, were statistical models of the economy that are used to estimate the impact of various alternative actions. The models come in many different flavors and while they don't always agree on the specifics, common threads run through most. For example, available research suggests that government payments to unemployed and certain targeted individuals most likely to spend the money have the largest **fiscal policy multipliers**. That is, the increase in output (GDP) per dollar of government spending or tax cut. The idea is that the money spent directly by government on, say, repairing roads, boosts spending by construction workers, some of whom had been laid off previously, and creates more jobs as the workers spend their paychecks on new clothes, furniture, and eating out—expenses they had previously held back on. This pickup in spending leads to more hiring and, in turn, results in more spending, and so on. The multiplier captures the cumulative effect of government spending on subsequent household and business spending that was induced by the

[1] A previous article on www.ja.org, "High Unemployment: The Recession's Harsh Reality," also discussed a number of reasons why unemployment was likely to decline rather slowly.

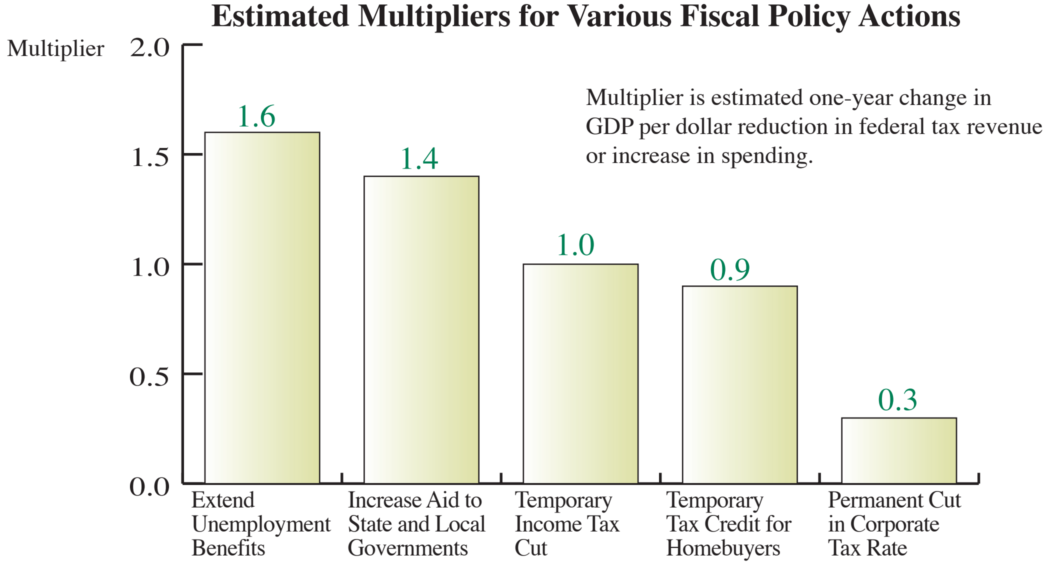
original injection of government funds. Thus, the larger the multiplier, the greater the short-term benefit to the economy.

In terms of business tax cuts, the multiplier, especially over a year, is generally thought to be much smaller because business firms already operating well below their productive capacity in the face of weak consumer spending are unlikely to increase their spending to modernize or expand their production facilities or hire more workers, actions that would increase the GDP, unless and until consumer spending picks up[2].

Exhibit 2 depicts the estimated multipliers from one prominent economist, Mark Zandi, who often testifies before Congress. His estimates for the multipliers over a one-year period from the time an action occurs—the impact lag discussed earlier—are within the range of estimates from a wide variety of models. More specifically, the Congressional Budget Office (CBO), a non-partisan research arm of the Congress charged with helping fiscal policymakers evaluate existing and proposed government programs, notes in its own evaluation of the stimulus program that the range of multiplier estimates on extended unemployment insurance is 0.8-2.1, compared to Zandi's 1.6, and is 0-0.4 for corporate tax cuts compared to Zandi's 0.3.

Exhibit 2

Estimated Multipliers for Various Fiscal Policy Actions



SOURCE: Mark Zandi, Moody's Economy.com

[2] See Jason Saving, "Can the Nation's Economy Stimulate Its Way to Prosperity?" *Economic Letter*, Federal Reserve Bank of Dallas, August 2010, and Congressional Budget Office, "Estimated Impact of the American Recovery and Reinvestment Act on Employment and Economic Output, April 2010-June 2010," August 2010 for more details.

Zandi's specific estimates aside, recall that policymakers in effect have a "menu" of policy choices to choose from. The choices they make from this menu matter in the sense that the estimated multipliers for the alternatives are not identical. In fact, the differences in the mid-points of the CBO ranges of the multipliers associated with alternative policy actions, in these cases, about 1.4 for unemployment insurance (mid-point of 0.8-2.1 range) and 0.2 for corporate tax cuts (mid-point of 0-0.4 range) are not small! According to these estimates, a stimulus program of $100 billion, for example, that was solely in the form of unemployment insurance would be expected to be about seven times more effective in the short run than a program consisting entirely of tax cuts for businesses (1.4/0.2=7).

Once the recession's severity was determined, the policy debate about what to do about it centered on the varying impacts of alternative government policy actions along with legitimate questions about the range of multiplier estimates for any particular alternative under consideration. Such questions, along with other more philosophical and political considerations, plus concerns about the ballooning federal budget deficit, require Congress and the president to come together around a set of policy actions of varying effectiveness that appeals to a variety of constituencies[3].

Taking the stimulus bill and its various provisions as a package, Exhibit 3 shows the CBO's estimates of the impact of ARRA on real GDP and on the unemployment rate from 2009-2012. Several points are worth noting.

- The estimated impact in 2009 was positive, but rather small, compared to the size of the stimulus package. This is not surprising, given that the bill was passed in February 2009 and it took some time to begin to implement the additional spending and tax reductions.
- The estimated impact in 2010 is considerably larger, reflecting the momentum in implementation and the hoped for improvement in consumer confidence.
- The estimated impact in 2011 is well below 2010 as various provisions of the act are phased out; and by 2012, the impact is projected to fade toward zero.

[3] For more detail on the legislative process, see the previous article on www.ja.org, "The Skyrocketing Federal Budget Deficit: Worrisome or Not?"

Exhibit 3

Estimated Economic Impact of ARRA

Change Attributable to ARRA		
	Real GDP Growth (Percent)	**Unemployment Rate** (Percentage points)
2009	+1.4	-0.4
2010	+2.8	-1.3
2011	+1.5	-1.0
2012	+0.4	-0.4

SOURCE: Congressional Budget Office

With most incoming monthly and quarterly data on the economy already showing some slowdown in the recovery, the voters' concern about the high level of unemployment, the state of the federal budget, and the ongoing debate on whether to renew some or all of the tax cuts scheduled to expire at year end 2010—it's easy to see why so many sitting legislators, regardless of party affiliation, faced strong challenges in the recent elections.

Again we ask, did the economic stimulus work? The best answer is probably "yes" in the sense that it helped pull the economy out of serious recession that might have nosedived into a depression. Still, it must be said that it did not work nearly as well as the federal government had estimated or hoped for. First, it took much longer to implement many provisions of the complicated stimulus bill; in fact, according to the government's own estimates (see www. Recovery. gov), only about 70 percent of the stimulus has actually been paid out to date, some 20 months after the bill was passed! Second, many other factors, including global economic conditions, the state of financial markets, and consumer confidence, help determine the health of the U.S. economy. To name just one, it is true that mortgage interest rates, reflecting in part Federal Reserve actions to stimulate the economy, are at historic lows, with the rate on 30-year fixed-rate mortgages around 4.25 percent. While this low rate would normally propel a strong housing demand, the high unemployment rate combined with lenders requiring larger down payments and stronger credit and employment histories, have worked to weaken the housing recovery.

So, Why Isn't the Economy Doing Better?

To sum up,

1. The Great Recession was very serious and will take some time to recover from. Put simply, the economy did not suffer a run of the mill cold that came on suddenly and will pass quickly. What happened had been building for years and produced something akin to a stroke suffered by humans; we hope and expect patience, therapy, and "medication" will eventually produce a full recovery.
2. Global developments, including growing debt problems in a number of countries, are holding back growth in the world economy; this holds back growth in the United States.
3. The stimulus package, ARRA, took a long time to piece together and implement; in the end, it contained many provisions, however well intended and useful in some other way, that did not produce much stimulus. Such provisions were part of developing the political consensus necessary to pass the bill.
4. The near collapse of the financial system, and the subsequent tightening up of financial regulation, has led to considerable caution by lenders in extending credit to consumers and small businesses. While no doubt helpful in rebuilding confidence in the stability and soundness of the financial system, such reluctance to lend is tending to hold back the economic recovery.

Where Do We Go from Here?

The balance of opinion is that the economy is vulnerable over the next six to 12 months. In a speech on October 15, 2010, the normally cautious and non-committal chairman of the Federal Reserve, Ben Bernanke, said of the economic outlook, "There would appear—all else being equal—to be a case for further action." Against this background, look for the incoming data on the economy to continue pointing toward a mixed economic picture, and for increased pressure on the Congress, the president, and the Federal Reserve to take further action to boost economic growth. Keep in mind that it will take time for the new Congress and the president to agree on what, if anything, to do, along with time for the new actions, if any, to have much impact. But undue delay runs the risk of the economic malaise extending well into 2011-12 and thereby becoming the focus of the next election, including President Obama's run for a second term.

Ben Bernanke, Federal Reserve Chairman

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