



EPI TESTIMONY

TESTIMONY GIVEN BY

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IN A HEARING BEFORE THE
HOUSE BUDGET COMMITTEE

**“An Assessment of the
American Recovery and Reinvestment Act”**

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Thank you Chairman Spratt and members of the committee for the opportunity to testify today. I am Josh Bivens, a macroeconomist at the Economic Policy Institute in Washington, DC.

In assessing the economic impact of the American Recovery and Reinvestment Act (ARRA, the Recovery Act henceforth) I'd like to make four arguments today:

-First, the Recovery Act was badly needed. The American economy at the end of 2008 and the beginning of 2009 was essentially in freefall and all other policy tools that had been tried had little effect in arresting the decline.

-Second, it worked as advertised. It has created almost 5 million full-time equivalent jobs and kept the unemployment rate from sitting well over 11% today. Unfortunately, the economic crisis that it was meant to address called for much stronger medicine than the Recovery Act by itself could provide.

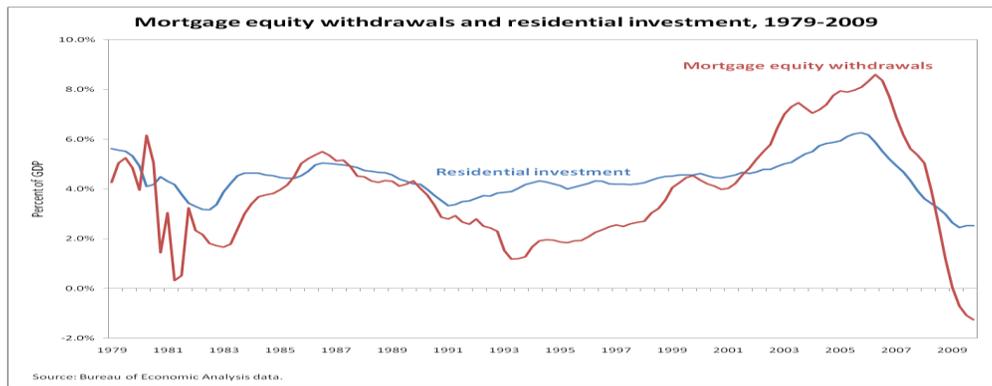
-Third, it was cheap. While the sticker-price of the Recovery Act (estimated at \$787 billion when passed) is often characterized in press accounts as enormous, it was less than half as large as the tax cuts enacted during the 2000s, smaller than the cost of wars in Iraq and Afghanistan, and, most importantly, small relative to the economic shock it was meant to absorb. Further, because it spurred economic activity and tax collections and reduced the need for safety net spending, its net budgetary impact was likely less than half the \$787 billion amount.

-Fourth, lessons learned from the passage of the Recovery Act should be heeded: More fiscal support should be provided to prop up the economy and spur a genuine recovery in the jobs-market. While the economy today would be worse off if the Recovery Act had not been passed, unemployment still sits at 9.5% today and will surely rise above 10% over the coming year, returning to pre-recession levels only several years from now unless more fiscal support is provided.

It was needed

The root of the current recession is simple to identify: the bursting of the housing bubble and its fallout. Between 1997 and 2006, the real price of homes in the U.S. economy, which had been roughly flat for many decades, almost doubled. Given that the stock of housing in the U.S. is enormous, this led to a huge increase in wealth. Because so few influential economists correctly pointed out that this wealth increase was sure to be ephemeral, U.S. households began borrowing against the value of their homes to support current consumption. When the housing bubble popped, these same households realized that meeting long-run wealth targets (planning for retirement or sending their kids to college) could no longer be financed out of rising housing wealth, so they began saving. As households began saving, businesses, seeing a threat to new sales, stopped investing to expand their own capacity.

This negative shock to private sector spending was enormous – between the end of 2006 and the beginning of 2009, the private sector went from borrowing 3.6% of GDP to saving 5.6% of GDP. This 9.2% swing in private sector spending was a larger economic shock than the one that led to the Great Depression. **Figure A** below shows two concrete measures of this fallout: mortgage equity withdrawals that allowed households to extract wealth out of their homes and increase their purchasing and residential investment – the economic activity generated by the act of building homes. Both are expressed as shares of GDP, both soared during the housing bubble, and both collapsed when this bubble burst.



Luckily, the U.S. economy is different now than compared to the 1930s. In particular, today’s economy has a larger public sector and one that contains many “automatic stabilizers” – including progressive tax collections that fall more rapidly than private sector incomes and safety net spending (like unemployment insurance and food stamps and Medicaid) that provides increased transfers to households when the economy slows. These automatic stabilizers kicked in as private spending slowed. This led to a purely mechanical rise in the deficit – roughly \$329 billion of the increase in the deficit between 2007 and 2009 can in fact be attributed to this purely mechanical effect of automatic stabilizers, according to the Congressional Budget Office.

And this large increase in the deficit was a very good thing. The increase in public spending power leaned hard against the rapid decline in private spending power, and contributed to keeping the economy from entering another Depression.

Of course, the increase in the deficit was not the only thing that helped support the economy – at the same time the Federal Reserve was aggressively fighting the downturn by cutting interest rates and supplying liquidity to the financial sector.

Still, automatic stabilizers and Federal Reserve action were not enough to forestall a rapid economic deterioration. By February 2009, the economy had seen monthly job-

loss that averaged 653,000 in each of the past 6 months, despite the fact that the short-term interest rates controlled by the Federal Reserve had been below 1% for 21 months.

When an economy continues to spiral downward even when the monetary authority has reached the limit of what conventional policy can do to arrest the fall, it is often referred to as a liquidity trap. Essentially, the economy “needs” short-term interest rates that are steeply negative in order to boost business investment and consumer spending on durables sufficiently to exit the recession. But, interest rates cannot go below zero. Even worse, as the economy suffers from a dearth of spending, this creates pressure for disinflation – as firms cannot sell output and new jobs are scarce, prices and wages are all-but-impossible to raise. This disinflation actually raises the “real”, or inflation-adjusted, interest rates facing businesses and consumers, even as the Fed’s control over nominal rates is bound at zero.

In short, because the primary tool that national policymakers use to fight recessions – lowering short-term interest rates - had been rendered ineffective, something else had to be done. This something was the Recovery Act, a deficit-financed combination of a roughly equal measure of tax cuts, transfer payments and direct government grants to support demand for goods and services and blunt the recession.

It should be remembered that the size and composition of the Recovery Act was a compromise. Many, including myself, thought the overall size of the package would be too small to bring the economy back to recovery without further action. Many (also including myself) also thought tax cuts had too large a weight in the final package and that many of them (particularly the fix to the alternative minimum tax, or AMT) were ill-suited for short-term stimulus. Because of these compromises on the size and composition of the Act, many believed that it would not be sufficient by itself to provide the economic boost needed to get the American job-market back to health in an acceptably rapid time-frame.

All this said, passage of the Recovery Act was a serious response to the nation’s economic crisis, and even with its somewhat-compromised composition, its forecasted impact was large – the best estimates were that it would create between 2-4 million jobs and boost GDP by roughly 5% over the first 2 years of its implementation.

It worked

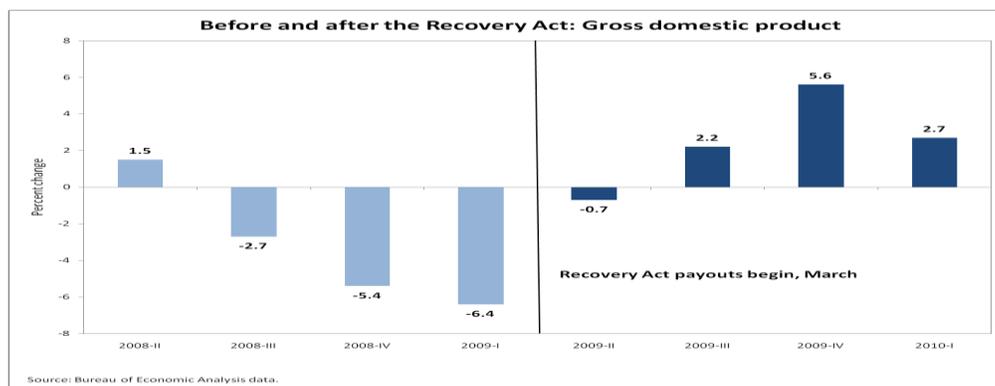
And this estimate has been spot-on. For those most convinced by appeals to authority let’s start with what private sector macroeconomic forecasters say about the Recovery Act. These are, remember, people whose salary relies on being closer than their competitors in forecasting economic trends. As a group, they are in near-universal agreement that the Recovery Act added roughly 3 percent to GDP by the end of June and that it created or saved between 2-3 million jobs. The non-partisan Congressional Budget Office (CBO) concurs, calculating that the Recovery Act contributed between \$240 billion to \$645 billion to the economy by the end of June, creating or saving up to

5.3 million full-time equivalent jobs and keeping the unemployment rate up to 2 points lower than it would have been in the absence of the act.

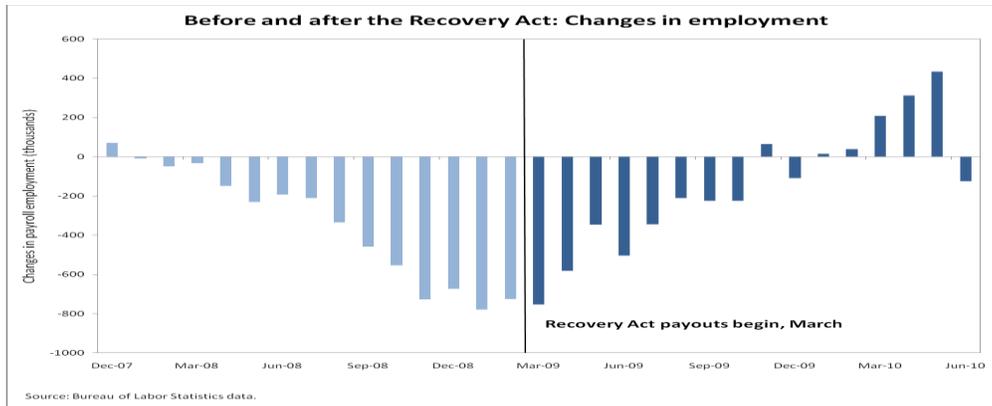
There are a number of factors that explain the near-unanimity among forecasters who have examined the impact of ARRA.

First, it is firmly in line with what mainstream economic theory teaches is the likely effect of deficit-financed tax cuts, transfers and spending in an economy that has high unemployment even in the presence of rock-bottom interest rates (i.e., is in a liquidity trap). The effect of increasing deficits to finance tax cuts, transfers and spending in a *healthy* economy is ambiguous and there are many complications to assessing it. However, in a liquidity trap these complications fade away and the impact of these policy maneuvers become quite straightforward; they unambiguously push the economy closer to its potential, lowering the unemployment rate.

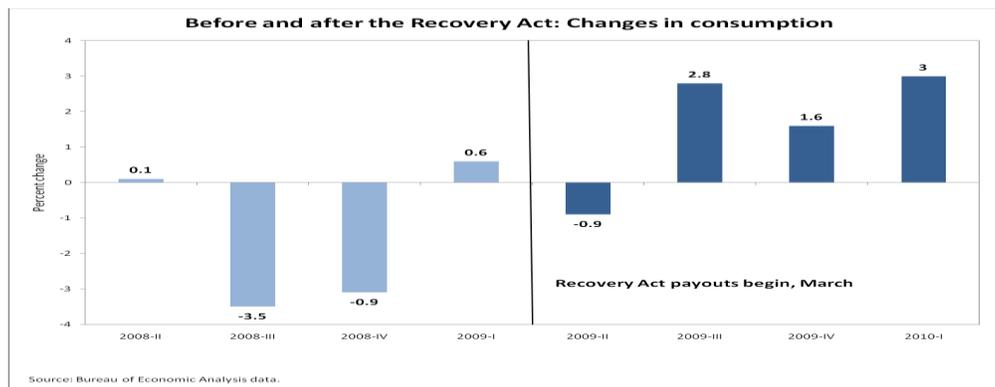
Second, the timing of the Recovery Act coincides perfectly with the halt in the downward spiral of both economic output and employment.¹ In the 6 months before the Act began paying out funds, gross domestic product *contracted* at a -5.9% annualized rate while in the 6 months after its passage the economy *grew* at a 0.75% annualized rate. In the first 3 months of 2010 it grew at an annualized rate of 2.7%. In the 6 months before the Recovery Act took effect, average monthly employment declined by 653,000 while in the 6 months after its passage it average declines fell nearly in half to 369,000. In the first 6 months of this year average monthly employment has actually grown by 147,000. **Figures B and C** present growth in GDP and employment, respectively, in the periods before and after the onset of Recovery Act spending. The pattern is clear – the downward spiral is stopped and even reversed almost immediately after the onset of the Act.



¹ In what follows I date the effect of the Recovery Act as beginning April 1, 2009. While it was passed in late February and some money was spent before this, April 2009 is the first month that saw significant amounts of money being spent.



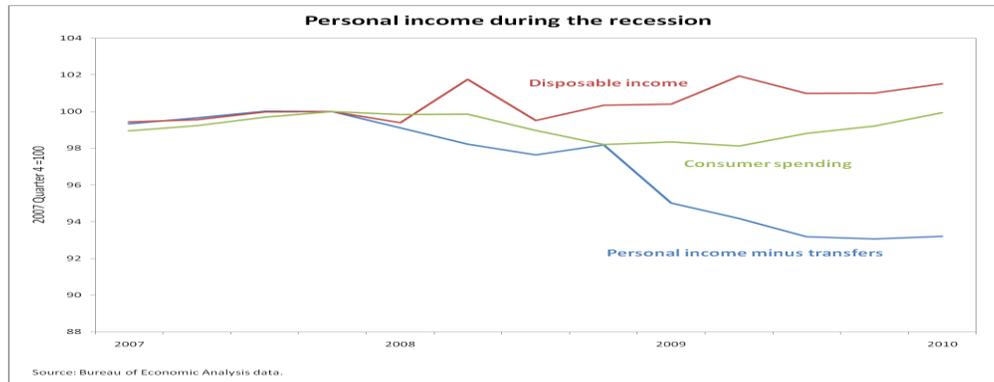
Third, the turnaround in GDP growth between the 6 months before and the 6 months after the passage of the Recovery Act was driven predominantly by a reversal in consumer spending. This portion of GDP (accounting for almost 70% of the total) contracted by -1.25% in the 6 months before the Act and actually grew by 0.95% in the six months after the Act’s passage. Contrary to most descriptions of the Recovery Act, this is actually exactly what one would have expected if it was working. Two-thirds of the Act’s provisions (the tax cuts and transfer payments) go directly to boosting the purchasing power of households, not in directly purchasing goods and services for the government. This boost to household disposable income helped to arrest the steep fall in consumer spending.² **Figure D** shows the before and after Recovery Act comparisons of consumption spending.



If one looks at total personal incomes (wages, profits, rental payments) and strips out the influence of government transfers, one can get a decent proxy for how robustly the private sector is generating income growth for households. This measure, personal income minus transfers, fell by 7.5% from peak to trough during the recession – the

² See the appendix to this report for evidence that the Recovery Act actually has not led to outsized growth in government expenditures.

largest decline since World War II. Yet, consumer spending fell by less than a third as much – less than 2%. The wedge between these two can largely be explained by looking at personal disposable incomes – incomes after-taxes and after-transfers. This measure actually never fell more than 2.2% peak-to-trough during the recession and is actually a bit higher today than it was immediately before the recession. This is largely due to the Recovery Act, though some of this is also the automatic stabilizers mentioned earlier. **Figure E** shows each of these series in the period before and after the recession began, with each normalized at 100 in the last quarter before the recession hit.



This evidence – the preponderance of opinion of macroeconomic forecasters, the timing of the Recovery Act taking effect and the reversal of the downward spiral in the middle of 2009, and the very large footprint of the Recovery Act provisions on personal disposable income and its correlation with consumer spending – adds up to an overwhelming case that the Recovery Act worked as advertised.

Essentially, without it, GDP would be \$600 billion lower today, there would be 3 million fewer jobs in the economy, and the unemployment rate would be nearly 2% higher even with fewer Americans in the labor force. While there remains much to be done to make sure that all Americans looking for a job have a decent chance of finding one, it is clear that we would be digging out of a much deeper hole today had the Recovery Act not passed.

It was cheap

Besides a general misunderstanding about its effectiveness, the primary resistance to providing more fiscal stimulus to today's economy, even in the face of historically high unemployment, is concerns about the federal budget deficit. This section will argue that in the context of the nation's *actual* challenge concerning the national debt – budget deficits that are forecast to rise in coming decades even during periods of healthy economic growth – the costs of the Recovery Act and further fiscal support to the economy are minimal. It further argues that a broader view of the Act's costs – not just its cost in terms of the federal budget but in terms of *overall* economic opportunity

costs – show that these costs are actually negative; that is the Act resulted in greater, not less, private investment and employment.

It is clear that the country faces long-run budget challenges that will require policy action in coming decades. A close look at the economics, however, shows that these budget challenges have nothing to do with the Recovery Act that was passed nor would they be appreciably exacerbated at all if more fiscal support was provided to the economy today.

For example, the Recovery Act added between 0.1 to 0.2% to the long-run (50-year) fiscal gap.³ If one is a true budget pessimist and believes that the alternative fiscal scenario identified by CBO in their latest report on the long-run budget outlook is a good forecast of the most likely trajectory of deficits (I'm not, for the record, such a pessimist) then this would imply that the Recovery Act was responsible for less than about 1-2% of the long-run fiscal gap facing the country.

The reason for this non-effect of the Recovery Act on long-run budget challenges is simple: the Act is temporary and the main drivers of long-run deficits remain rising health care costs and low revenues as a share of GDP.

Another reason why the Recovery Act was cheap (and why further fiscal action aimed at spurring the economy would be cheap) is that its headline cost (\$787 billion in the case of Recovery Act) is actual far greater than its actual net impact on the budget deficit. Because the Recovery Act saved jobs and wage incomes, it generated new tax revenue. And because it kept people working, it kept them out of public safety net programs.

Say that the overall multiplier of the Recovery Act was 1.25 – this is the boost to total GDP per dollar increase in the deficit. The more effective parts of the Act (extensions of unemployment insurance and other safety net programs and investments in the nation's infrastructure and aid to fiscally strapped state and local governments) actually have multipliers significantly higher than this, but because the Recovery Act also included items like the AMT fix that provided very little bang-for-buck, the overall multiplier was lower. Given a multiplier of 1.25, the \$600 billion in Recovery Act spending that is set to occur before the end of calendar year 2010 will result in GDP that is higher by roughly \$750 billion by the end of this year.

Other data from the Congressional Budget Office suggests that each \$1 increase in GDP relative to potential yields a \$0.35 decrease in the deficit as revenues rise and spending falls. Multiplying the \$750 billion in extra output by this \$0.35 indicates that the economic activity spurred by the Recovery Act actually recoups just under \$330 billion –

³ The fiscal gap is a short-hand measure of the long-run fiscal imbalance. Essentially, it tells one how much some combination of tax increases and/or spending cuts (expressed as a share of GDP, enacted immediately, would be needed to close the long-run budget deficits.

more than half the headline price tag of \$600 billion. In short, well-designed policies aimed at spurring economic activity come with a built-in and significant offset to their total costs.

This exercise also drives home the importance of designing stimulus packages well. Take the high and low-end of Recovery Act provisions in terms of bang-for-buck provided by Moody's Economy.com. If the entire Act consisted of provisions with a bang-for-buck as low as that provided by corporate tax cuts or providing the opportunity of businesses to "carryback" past losses against future taxes, the budget offset provided by the act would be less than \$80 billion. If instead the entire Act consisted of provisions with bang-for-buck comparable to safety net expansions and infrastructure spending, the budget offset approaches \$400 billion. Simple design of stimulus packages can make their final impact on the deficit differ by literally hundreds of billions of dollars. Besides just not providing effective stimulus, the less well-designed parts of the Act should have been excluded on the basis of fiscal responsibility.

It has been rightly pointed out by some that one could overstate the degree to which additional support would provide built-in offsets to its net addition the national debt. In a given year, it is highly unlikely that economic multipliers are large enough to allow additional fiscal support to be entirely self-financing. Because of this, many commentators have warned against supporters of more support engaging in hyperbole similar to that of supply-side tax advocates who claim that cutting tax rates can spur enough economic activity to bring in sufficient additional revenue so as to make these rate-cuts self-financing.

While this caution may be useful, it should be made clear that the case for full self-financing over time of temporary fiscal support in an economy stuck in a liquidity trap is actually not totally implausible, while the prospect of self-financing permanent cuts in tax rates is indeed totally implausible.

If fiscal support pushes the economy back to levels of GDP that are characterized by full-employment much quicker than in the absence of this support, then it is indeed possible for it to be all-but-totally self-financing. The economists' jargon for this is avoiding hysteresis in labor and product markets, but the insight is pretty simple – if fiscal support generates additional economic activity not only in the year of its implementation but also allows the economy to much more quickly reach its potential – this represents multiple years of additional revenue and less safety net spending and could indeed lower overall ratios of debts and deficits to GDP.

How likely such a full offset is depends largely on how effectively the fiscal support is structured and how much time it shaves off the wait for the economy to regain its potential. Given that many of the mechanisms that tend to push recessed economies back to trend levels seem weak or inoperative in the current economy, it seems quite likely to me that the net fiscal cost of particularly well-structured fiscal support is

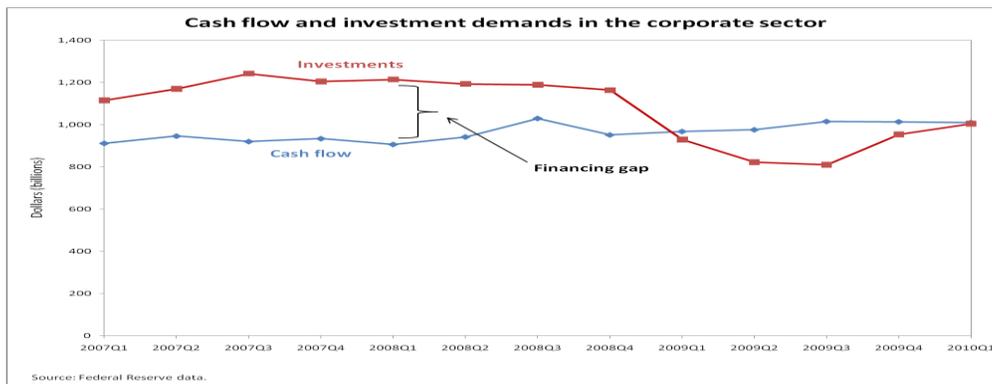
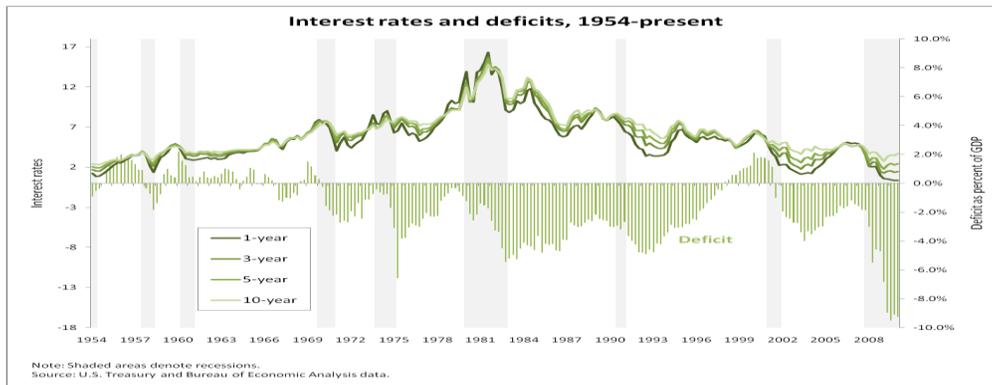
essentially zero over the medium and long-term. And it is budget deficits over this medium and long-term which are forecast to rise even during times of healthy economic growth that are the proper focus of concern.

Besides having a minimal impact on the stock of outstanding national debt, the Recovery Act was financed in an economic context of historically low long-term interest rates for government debt. These low rates are no fluke – they are low precisely because private spending and borrowing is at historic lows (i.e., the recession). Further fiscal support could also be financed at very low rates, as excess capacity and little competition for loanable funds continues to characterize the economy. Additionally, upward interest rate pressure stemming from Federal Reserve actions is extremely unlikely, given both the weakness of the overall economy and their stated intention to keep rates low until the economy has begun a robust recovery.

While low interest rates contribute much to the relative cheapness of the Recovery Act, they also provide the clearest indication that the Act is also cheap in its broader economic opportunity costs. The most well-pedigreed argument against increasing budget deficits in healthy economies is the fear that increased government borrowing causes interest rates to rise as public demand competes with private demand for fixed savings of households and businesses. These rising interest rates spurred by growing deficits results in private investment “crowding out” private capital formation and the lower value of the private capital stock leads to lower future growth. When economic commentators make arguments disparaging the ability of the Recovery Act (or government spending of any kind) to create jobs, they generally make variants of this crowding-out argument.

The general failure of interest rates to rise in response to the increase in budget deficits, and to the Recovery Act in particular, is a prime piece of evidence that no crowding out of private investment is occurring, making the Recovery Act not just cheap, but essentially free in terms of its overall economic opportunity cost.⁴ This is, again, not unexpected. Economic theory teaches that increased public borrowing during a liquidity trap does not crowd-out private sector activity. **Figure F** shows the relationship between deficits, interest rates and recessions. It shows clearly that during recessions deficits rise (both due to automatic stabilizers as well as policy responses) while interest rates fall (in part due to Federal Reserve efforts to fight the recession but also because private demand for new loanable funds fall). **Figure G** shows that corporate demand for new debt has fallen so much since the latest recession began that essentially all new desired corporate investments could be financed out of internal funds – in the jargon, the corporate “financing gap” has turned negative.

⁴ There is an additional channel through which increasing federal budget deficits in a healthy economy can lead to slower domestic income growth – if the increased borrowing spurred by them leads to greater borrowing from foreign investors. Very few (if any) detractors of the Recovery Act have made the argument that this has happened – and correctly so. The mechanism for this channel to work would have to be a rise in the trade deficit. But, the trade deficit fell significantly over the course of this recession.



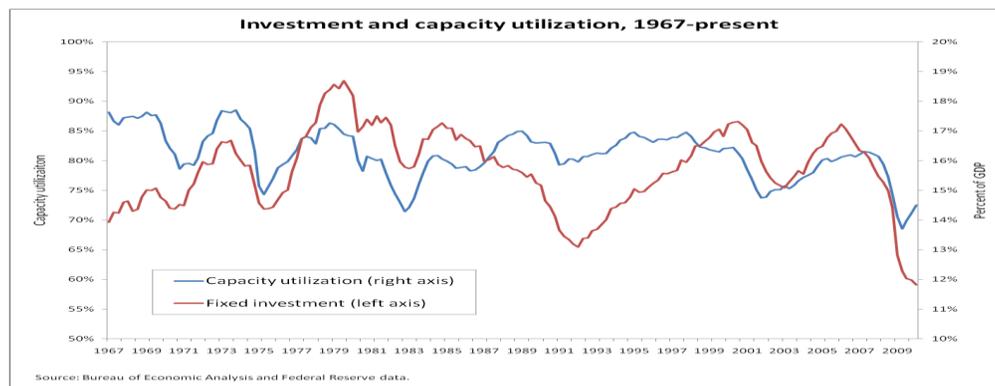
It is worth stressing this “crowding out” mechanism, given that many Recovery Act detractors have pointed to very low rates of overall investment as some sign that private activity is being stunted by increased public sector activity. The textbook presentation of the effects of fiscal policy *requires* higher interest rates as the mechanism through which private investment may be stunted by increased public borrowing in a healthy economy. Without the rise in interest rates, there is no way to link increased public borrowing and lower private investment.

Some commentators, having neither theory nor evidence on their side in making the argument that increased public spending must by definition reduce private spending, have done the economic equivalent of banging the table – insisting that vague concerns about “uncertainty” spurred by the economic policy actions of the administration explain the reduction in private investment. This is supremely unconvincing, for a few reasons.

First, there is no particular reason to think that private investment is actually abnormally low at the moment. Numerous academic studies suggest that the prime determinant of private investment is in fact the simple state of the economy. Given that we are just

emerging from the steepest and longest recession in post World War II history, it is far from surprising that investment spending is low.

Further, the capacity utilization rate (think of this as the employment rate of factories instead of people) reached historic lows in the past year. With current capacity far from being fully utilized, why would businesses seek to spend money to build more of this capacity? Finally, it should be remembered that investment in structures, both residential and non-residential, is an important component (just under half) of overall investment. Given the massive overbuilding in the residential housing sector for the past decade and the sharply rising vacancy rates in commercial real estate, it is again hard to imagine why businesses would seek to expand investments in structures. **Figure H** demonstrates the tight relationship between capacity utilization and investment as a share of GDP.



Second, there is very little evidence that economic uncertainty of any kind provides a the kind of sharp shock to private investment that would explain the very large fall-off in investment that characterized the worst phases of the last recession.⁵

Lastly, given that overall economic activity is a prime determinant of private investment and that the Recovery Act assuredly spurred greater activity, it is very likely that the Recovery Act actually “crowded in” private investment – actually made the fall-off in private investment *less steep* that it would have been absent the Act’s effects. Evidence for this can be seen in a number of papers that find very large multiplier effects of fiscal support when an economy is a liquidity trap.⁶

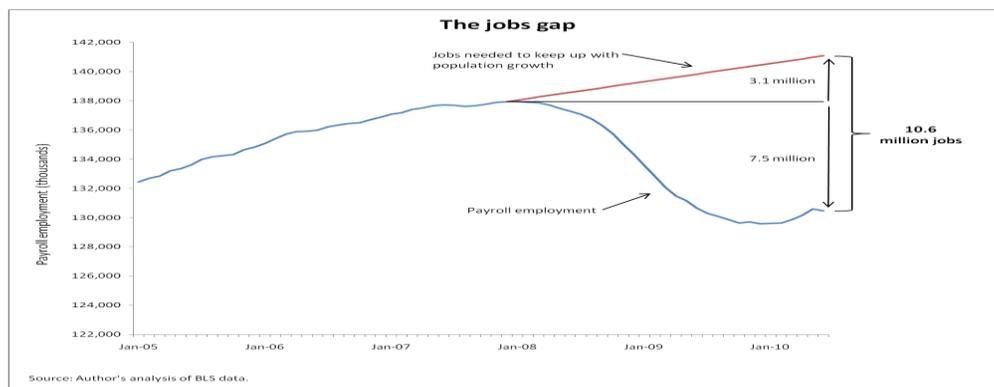
It should be repeated

So, while the Recovery Act saved the U.S. economy from a worse economic fate – today’s economic fate is still poor. Today’s unemployment rate stands at 9.5% and a series of economic overhangs – the overhang of average hours decline, the overhang of

⁵ See Bachman, Elstner and Sims (2010) for the very low short-run impacts of business uncertainty on investment.

⁶ See Eggerston (2010), Woodford (2009) and Hall (2009) for representatives of this finding.

the “missing labor force” (the 2 million workers who withdrew from the labor force since the recession began and who will certainly return looking for work in coming years), and the overhang of business and consumer debt that will keep spending in both sectors cautious in coming years – mean that, absent further support to the economy, it will take an agonizingly long time to bring it down to levels seen before the recession began. For example, the Congressional Budget Office (CBO) has forecast the unemployment rate will average 6.3% in 2013 – this is higher than the peak rate reached during the recession and jobless recovery in the early 2000s recession. **Figure I** presents the simplest presentation of the current state of the labor market, documenting how many jobs are needed to return the unemployment rate even to its rather undistinguished level of December 2007.

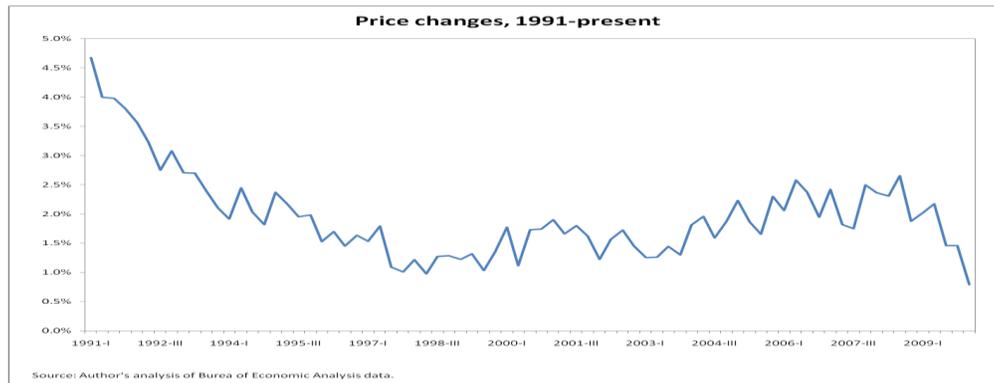


Further, even this grim forecast for unemployment assumes the economy grows consistently in the next couple of years. Given recent headwinds that have picked up steam in the past few months, even this cannot be assured. The most recent monthly employment situation demonstrated that the pace of private-sector hiring has decelerated and wages actually fell in inflation-adjusted terms. State and local spending has actually contracted in each of the past 3 quarters – only the 4th time in the post-war period that this has happened.⁷ Given that state and local budget holes look set to widen in coming years, this means that this important sector will be dragging on growth for quite some time. Lastly, many of the major trading partners of the United States have embraced fiscal austerity; this means that net exports will not be a source of strength moving forward either.

Economic data in the form of rapidly decelerating prices and wages is also sending strong signals that excess capacity in the economy is threatening to grow again. Essentially all indicators of overall price pressure in the economy show rapidly decelerating price growth, and several show outright deflation (falling prices) in recent

⁷ See the appendix for evidence on the poor performance of state and local spending since the recession began.

months. **Figure J** shows one of the most reliable and well-measured of these series - the market-based deflator for personal consumption expenditures excluding food and energy. This is not only a symptom of poor economic performance, this disinflation also causes real interest rates to rise just when we want them to fall. In short, this disinflation not only signals slower growth, it also adds to the growth headwinds facing the economy.



Perhaps most distressing, the boost to growth provided by the Recovery Act is actually fading – and fast. The current quarter (the third quarter of 2010) is probably the last time the Act will contribute 1% to annualized GDP growth. By the last quarter of this year, it will be contributing next to nothing. Given that GDP growth in the past 3 quarters would have likely been zero without the influence of Recovery Act spending – it seems clear that more support is needed to provide the bridge to the period where private incomes and spending can generate economic growth on their own.

Conclusion

The Recovery Act worked just as advertised, creating nearly 5 million full-time equivalent jobs in the economy when such growth was desperately needed. However, the bulk of its effect has passed – and millions of jobs remain desperately needed.

It seems amazing now, but 30 months ago Congress acted quickly to pass a \$160 billion stimulus package to avoid the prospect of unemployment rising from 5 to 6%. The unemployment rate now stands at 9.5% and further fiscal support does not seem to be forthcoming. This testimony tried to make the case that there is no *economic* reason to believe things have so changed in the past 30 months as to make further fiscal support unwise.

The fiscal support provided by the Recovery Act was needed, effective, and cheap. Further support is clearly needed and, if structured well, could be very effective and cheap as well.

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Appendix

A common misunderstanding of the Recovery Act is that it has led to a “flood of government spending”. In fact, federal non-defense spending has actually grown essentially exactly in line with historical averages following recessions. **Figure A1** below shows the growth of federal spending in this recession (solid black line) compared to the average growth following recessions in all business cycles since World War II (dashed line). The figure also shows (shaded gray areas) the highest and lowest episodes of federal non-defense spending. The clear takeaway from this figure is that there has been no historic “flood” of federal government spending following the onset of the most recent recession.

Figure A2 shows that there also has been no flood of state and local spending. Even with the significant support provided to state governments through the Recovery Act, state and local spending has actually been at near-lows relative to other business cycles.

