# U.S. DEPARTMENT OF THE TREASURY

### **Press Center**



# Remarks by Assistant Secretary for Economic Policy Jan Eberly before the National Bureau of Economic Research (NBER)

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# As prepared for delivery

**WASHINGTON** - Thank you for inviting me to speak to you today. It's always enjoyable to participate in an NBER event, and as my work has become focused on policy-making, I have been an even more avid consumer of the work that many of you do. In that role, I cannot over-emphasize the importance of credible, empirically well-founded analyses to guide policy making. If one listens to only the publicly reported rhetoric, one could legitimately wonder what guides policy development and choice. Having participated in those discussions now, I can clearly see and report that there is no substitute for compelling evidence in supporting development and decisions in economic policy. It is not the only factor, and we don't always have the right data or studies to guide us, but good analysis speaks loudly and makes a difference. I'll return to some examples of how data is used in policy development, but I'd like to start with a summary of where we stand in the economic recovery, and then discuss some fiscal policy choices and how evidence affects our view, both of macro policy and of the micro policy that often implements the macro ideas.

#### The Macroeconomic Outlook

Turning first to the macroeconomy: as you know, the U.S. economy is in the process of recovering from a severe financial crisis and associated recession. History teaches us that recovery from such crises is gradual, as households and businesses correct the imbalances that initially caused the damage. Despite this ongoing process of deleveraging, real economic activity has continued to recover, registering 12 straight quarters of growth which have brought the level of real GDP nearly 7 percent above its low point during the recession and almost 2 percent above its pre-recession peak. Similarly, the labor market has continued to heal with private-sector payrolls registering an average increase of 133,000 so far in the third quarter compared to 88,000 in the second quarter. All told, 4.6 million new private-sector jobs have been created since the trough in the labor market in February 2010.

However, ongoing developments – in no small part related to the recovery from the global financial crisis – continue to buffet the economy and lead to an uneven path. It is interesting to point out that the volatility of GDP growth in the current expansion has actually been lower relative to the volatility of growth during a typical expansion, although it is in line with the overall reduction in the variability of GDP growth over the past 25 years known as the Great Moderation. Over the period covering the economic recovery (2009Q2 through 2012Q2), the standard deviation of GDP growth is 1.1 percentage points – about two percentage points below the average standard deviation during all the previous recoveries in the post-war period – and the coefficient of variation, which takes into account the growth rate itself, is similar to what we've seen in the last three recoveries.

This reduction in volatility notwithstanding, U.S. economic activity has moderated in recent months. Real output growth stepped down to a pace of 1.7 percent at an annual rate in the second quarter after increasing at an average pace of 3 percent over the previous two quarters. In interpreting these recent data, it is important to keep in mind that a number of factors have weighed on growth over the past several months, including the run-up in energy prices earlier this year, the unusually warm winter weather which pulled forward activity from the second quarter into the first quarter, and the sovereign debt problems in Europe. In addition, the severe drought affecting much of the country since June is also likely creating a drag on economic activity on the order of a half a percent or so in the second half of the year. This recent slowdown serves to highlight the continuing challenges that economies face, even as they are still emerging from financial crises.

Looking forward, general conditions in the private sector remain supportive of further growth. As I noted earlier, households have made progress in deleveraging, and as most families' largest asset is their home, the improvement in house prices, along with recent gains in the stock market, should support wealth accumulation going forward. Although energy prices have moved higher recently, they are lower than the peak levels reached this spring, putting less pressure on consumer budgets. These factors should support consumption going forward.

On the business side, conditions are favorable for further increases in investment. Interest rates remain very low, making it relatively inexpensive to invest, and access to credit is improving, although certain firms may still find it difficult to qualify for credit. The corporate profits of domestic industries rose by \$124 billion over the four quarters ended in the second quarter of this year and stand near a record level, and corporations have record levels of cash on hand with which to fund desired investment.

The housing sector – while still very fragile – has started to show signs of improvement. According to a variety of nation-wide measures, house prices have risen in recent months and are even showing year-over-year gains. The FHFA purchase-only house price index rose seven tenths of a percent in June, and it has risen 3.6 percent over the past twelve months. Prior to February, there had not been a year-on-year increase in almost five years. The 20-city S&P/Case-Shiller home price index climbed 2.3 percent in June, its third consecutive year-over-year increase after six months of decline and bottoming out in March. The CoreLogic Home Price Index including distressed sales rose six tenths of a percent in July and was up 3.6 percent in the past 12 months, its seventh consecutive month of year-over-year increases. Excluding distressed sales, the CoreLogic index grew 1 percent in July and 3.9 percent annually, the eighth monthly year-over-year increase.

However, the longer-term data put this in perspective. While the recent uptick in housing prices is noteworthy even in this broader view, the longer-term data reminds us of the steep drop in housing prices since 2007 and the magnitude of the shock to balance sheets and the macroeconomy.

In the depths of the housing crisis, the Administration developed housing policy that was grounded in and informed by the available data on how to reach families in distress, while protecting taxpayers. The Making Home Affordable (MHA) programs address a wide variety of housing market issues – including first and second lien mortgage modifications, refinances, principal reductions, and foreclosure alternatives. Each of these issues had its own challenges and demanded unique program features, and each of these programs was updated and expanded as the performance data came in over time. Overall, a total of 1.5 million refinances have occurred through the HARP program, and over a million modifications have been implemented through the HAMP program, including private modifications using the HAMP model as a template.

Taking all of these factors into consideration, including the recent changes in the housing market, private forecasters project GDP to rise about 1¾ percent for the year as a whole, comparable to the pace in 2011. Going forward, the pieces are in place for a pick-up in economic activity, but the economy still faces many challenges. The unemployment rate remains unacceptably high at 8.1 percent and clearly too many Americans are still looking for work. Despite the substantial progress already made, with the debt-to-income ratio falling from a historic high of 130 percent to 110 percent (roughly equivalent to its level in late 2003), households will continue to deleverage. Finally, the sovereign debt crisis in Europe continues to weigh on financial markets, and global growth has slowed more broadly, which restrains demand for exports of American goods.

# The Fiscal Backdrop

In addition to the substantial headwinds just mentioned, it also important to point out that the economy has already faced an unprecedented amount of fiscal tightening given the amount of slack that remains in the economy. These actions—primarily from state and local governments, but also more recently from the federal government—have further dampened the pace of recovery.

On average over the past four decades, state and local government spending has contributed about ½ percentage point to real GDP growth. However, since early 2010, the contraction in state and local government outlays has subtracted an average of roughly four tenths of a percentage point from growth per quarter. Moreover, state and local governments have shed more than 650,000 payroll jobs since the recession ended. While the finances of state and local governments are improving, most states will still need to cut expenditures in the future to meet balanced budget requirements. The federal government has also been a net drag on GDP growth since the end of 2010, as the fiscal stimulus enacted to counteract the recession has receded.

Even with this unprecedented amount of fiscal consolidation still underway, some have advocated for further aggressive fiscal contraction. In the beginning of my remarks, I pointed out that good economic analysis is useful in guiding the policy process. Indeed, while there is a nearly complete consensus among economists and budget analysts that deficit reduction sufficient to stabilize our debt would have long-run economic benefits, economic research also cautions that fiscal consolidation is contractionary in the short run. Though under certain conditions the withdrawal of fiscal support can be partially offset by economic and policy changes, those conditions do not prevail in the United States today. Interest rates are currently at historic lows, leaving little room for them to go lower, and exports cannot be counted on to grow enough to offset substantial near-term cuts. Though phased-in deficit reduction in the medium term is needed, it must be combined with support for the economy right now.

## Impact of Fiscal Consolidation on Near-Term Growth

To make this point more starkly, consider that in a variety of standard economic models, government support boosts output by increasing demand, desired hours of work, and the optimal capital stock (see for example the discussion in Ramey, 2011). However, in the long run, larger deficits result in higher interest rates and dampened output. A reduction in government support operates similarly, but in the reverse

direction, putting a drag on the economy in the short run. In the U.S. context, the impending withdrawal of fiscal impetus occurs at a time when there is little capacity for other changes in the economy that might offset it.

The view that fiscal consolidation is contractionary in the near term is supported by broad empirical research, including a recent study by the IMF that focused on the experiences of 15 advanced economies from 1980 to 2009. The IMF found that a fiscal consolidation equal to 1 percent of GDP reduces GDP by half a percentage point on average over the first two years and increases the unemployment rate by ½ percentage point.

#### **Economic Changes That Can Offset the Effects of Fiscal Consolidation**

As the IMF study highlights, the reduction in government support can theoretically be offset by a number of factors such as an increase in confidence and a reduction in interest rates, driven by the increase in national saving and reduction in risk that can accompany a decline in the deficit. The decline in interest rates can promote domestic and external demand, as well as investment, supporting growth to help offset the fiscal consolidation.

#### The United States' Ability to Offset Negative Effects of Fiscal Consolidation is Limited

However, given today's economic realities, the United States is unlikely to benefit from the factors that could potentially attenuate the negative impact of a fiscal consolidation. We already face a large gap between actual and potential GDP, which would be exacerbated by a reduction in fiscal support. In addition, much of the potential mitigating effect of fiscal consolidation is driven by lower interest rates. However, the yield on the 10-year Treasury bond is less than 2.0 percent, already extraordinarily low by historical standards. This suggests that any gain in confidence from an improved fiscal outlook is unlikely to translate into still-lower interest rates in the near term.

A final way to offset fiscal consolidation would potentially come through a significant increase in exports, allowing for foreign demand for goods and services to fill in the gap left by lower domestic demand. Since their trough during the financial crisis, exports have grown by 27 percent in real terms and have been a significant part of the economic recovery to date. However, given the challenges to growth globally, especially in advanced economies that are key trading partners, the United States cannot count on further increases in the demand for our exports from overseas markets to materially offset large-scale fiscal consolidation.

Though phased-in deficit reduction in the medium term is needed, it must be combined with deliberate support for the economy right now. The President's FY2013 Budget is designed to consider both the long-term need for fiscal consolidation and the short-term need to stimulate economic activity. In particular, the Budget includes a package of measures designed to stimulate job growth in the near term. Of these, the Administration and Congress have already extended the 2 percentage point payroll tax cut and an extension of emergency unemployment benefits until the end of 2012, and the Administration has been urging Congress to act on other job creation programs. In addition to these near-term measures to boost economic activity, the FY2013 Budget also includes a strategy to cut the deficit in half and achieve primary budget balance before the end of the decade. It does so through a balanced package of tax reforms and spending cuts that still leaves room for us to make necessary longer-run investments – in infrastructure, education, and research and development – that are focused on raising our competitiveness and productivity, and ultimately our standard of living.

#### Education

Indeed, economic studies tell us that education is one of our highest-payoff long-run investments. Education policy is an example of how micro policy is used to achieve macro objectives, such as raising productivity. I must say that when I think about my students who couldn't get to an 8:30 class on time, who begged for extra time and extra credit, I sometimes find this a little hard to believe. But these also turn out to be the same students who later spend the summer building houses in Indonesia, and later getting up in the middle of the night for the Asia trading session.

I have many anecdotes from a career in education, but we all know that anecdotes are basically single data points. More systematic data tell a very compelling story – showing that the returns to higher education are large; that these gains accrue not only to individuals but also to society at large; and that therefore the government can and should play a role in creating policies to encourage individuals to seek higher education.

Setting aside the positive externalities, even at an individual level, the evidence is clear that education has never been more valuable. Typical IV estimates of the returns to education show returns of 7 to 10 percent a year, which are extremely high returns by almost any standard. And comparisons of the earnings gap between those with a college degree and those without one, of the type pioneered by Jacob Mincer, show that it is the highest it has been since 1915, the earliest year for which such estimates exist. This gap, however, doesn't even capture all of the benefits: college-educated workers are far less likely to be unemployed and are more likely to have jobs that provide additional benefits such as employer-provided health insurance, paid vacation, and sick leave. In particular, the reduction in the unemployment rate is quite significant, as those with a high school diploma alone are nearly twice as likely to be unemployed as those with a college or advanced degree.

Given the growing returns to higher education, one would expect to see a response in college enrollment. Indeed, this effect is apparent in the data. As you can see, college enrollment has grown substantially. The Department of Education estimates that of the 2.9 million people who finished high school in 2009, 70 percent (approximately 2.1 million) enrolled in college that same year. One decade earlier, in 2000, only 63 percent of recent graduates enrolled in college right out of high school.

I would make two additional points based on this chart. First, the vast majority of higher education takes place at public institutions. Approximately 80 percent of new students enroll in a public institution. Second, while enrollment has grown across the board, growth is highest at private, for-profit institutions, although they still represent a small share of total enrollment.

In addition to rising college enrollment, we have also seen rising tuition costs. As the next slide shows, posted tuition has more than doubled in real terms over the last thirty years.

Note that tuition has risen the most quickly at public, four-year colleges, increasing by more than 350 percent over this time period. Net tuition, defined as sticker tuition minus financial aid, has increased at a slower rate due to greater availability of financial aid, but the increase has nonetheless been substantial, especially for those students who do not receive financial aid.

Underlying the trend in tuition is a fundamental shift in education financing, especially at public institutions. As state support for higher education has been withdrawn, tuition has grown in importance as a source of funding at public institutions, doubling from only 20 percent of revenue in the late 1980s to over 40 percent today.

During that same time period, state and local government support has fallen by almost the exact same share. In fact, 2009 was the first year since we began keeping these statistics that tuition accounted for more revenue than state and local governmental support at public institutions.

At the same time, the federal government has increased its support for higher education by increasing the size of Pell Grants, and by enacting new tax credits, which assist students and parents in coping with increased tuition. While these programs soften the impact of higher tuition, they do not completely offset the substantial decline in support from state and local sources.

These data enable us to see the true trend: an on-going decline in state and local public support for higher education, with a shift to tuition-based funding which is partially offset by increased need-based financial aid. Low tuition was historically supplemented by public funding – the current generation of tax payers – supporting the education of the next generation of students. This cross-generational support is a classic example of a social contract: one generation invests in subsequent ones, which in turn uses the benefits of that investment to support the next, and so on. In contrast, our society is moving toward a situation in which individuals or their families are themselves increasingly responsible for making investments in human capital.

The federal role in financial aid is therefore crucial, in particular through programs like Pell grants for disadvantaged students or the American Opportunity Tax Credit. As we consider potential changes to the federal role in higher education through the reauthorization of the Higher Education Act, these issues are front and center. However, some have been skeptical about the incidence of programs like these. The so-called "Bennett hypothesis" argues that aid to students, such as Pell grants, simply gets appropriated by schools by raising tuition (or by lowering institutional aid to students). For many years, economists have sought to estimate the effect of federal financial aid on institutional aid or tuition. I'm going to focus on Pell grants today, but many have done work on other aspects of this question; for example, Nick Turner of the Treasury Department, who is in the audience today, has examined the extent to which tax credits for higher education are reflected in tuition.

A recent paper by Lesley Turner of the University of Maryland has helped to clarify these issues. Turner used a novel approach to estimate the relationship between Pell grant aid and institutional aid, using the newly-developed "Regression Kink Design". In particular, individuals are only eligible for Pell grant aid if their family resources – what is called their Expected Family Contribution (or EFC) – falls below a certain threshold. As their income falls farther below that threshold, the amount of their Pell grant rises. This creates a discontinuity in the slope of the relationship between EFC and Pell grants, as shown in the gray dots on the slide (see slide 10). At an EFC above the threshold for Pell eligibility, the slope of this relationship is zero. Below this threshold, the slope is negative (as lower EFC raises the size of the Pell grant).

Turner's insight was that if Pell grants affect college tuition, this change in the slope should also show up in institutional aid to students. In other words, if larger Pell grants cause lower institutional aid, then the slope of the relationship between institutional aid and EFC should also be discontinuous at the EFC threshold. In particular, moving from just to the left to just to the right of the EFC threshold, the slope of this relationship should fall sharply. And the blue circles on the slide show that this is exactly what happens. Since there are no other relevant changes in the population or in federal programs that occur at this EFC threshold, it is extremely credible that the change in institutional aid is due to the change in the Pell grant that starts at this threshold.

So the Bennett hypothesis seems confirmed: higher Pell grants lead schools to charge students more. But using the Regression Kink Design, Turner goes beyond this and puts a number on the degree to which this occurs. She finds that schools capture 16 percent of Pell grant aid through decreases in institutional aid. So while schools do charge students more when the students receive Pell grants, the vast majority of Pell grants – 84 cents on the dollar – go to lower the amount that students pay. This is a far cry from the fears of some supporters of the Bennett hypothesis: that Pell grants are simply reflected one-for-one in tuition, or close to it.

Now to be fair to the Bennett hypothesis, it's worth pointing out that while students receive 84 cents on the dollar through lower tuition paid, there is significant heterogeneity among types of schools. Turner finds that selective non-profit schools capture close to 80 cents on the dollar of Pell grant aid. However, these schools comprise a small fraction of the overall U.S. college student population, and they also tend to have few Pell recipients. Thus, the impact of these schools on the aggregate amount of crowd-out is small. Less selective non-profit schools and for-profit schools, meanwhile, show substantially less crowd-out. As a result, the evidence suggests that in the aggregate, Pell grants are successful in dramatically lowering the amount that needy students pay for college. As we consider how to make higher education accessible across the income distribution, this is crucially important information to policy-making.

#### Conclusion

To reiterate what I mentioned at the outset of my remarks, economic analysis has played and will continue to play a crucial role in addressing our economic challenges in a practical and thoughtful manner. It is this perspective – a perspective fundamentally informed by credible, empirically well-founded analyses – that we bring to bear on the policy debate in which we are engaged. An economy that supports measurable improvements in standards of living is one with productivity growth, driven by investments in human capital and education, research and innovation, and the infrastructure to support growth.

If you'll indulge a little history in addition to recent data: this is not the first time that our country has faced difficult long-run challenges alongside near-term stresses. In many previous cases, we have risen to the occasion: the high school movement of the early 20th century increased high school completion from 9 percent to 40 percent in just 25 years, land-grant universities, polio vaccinations, food safety regulation built across many administrations – begun by Harry Truman's 1947 signing of the Federal Insecticide, Fungicide, and Rodenticide Act of 1947, and continuing to the Safe Drinking Water Act of 1974 (Ford) and the Food Quality Protection Act of 1996 (Clinton) – the National Park System, and the Eisenhower interstate highway system. These were all investments made knowing that they had potential long-run benefits, and required costly and risky initial investments, without knowing how large or how lasting their legacy would be.

We have been through a terrible crisis, and while the economy continues to improve, the legacy of the crisis is still wrenching for many families. The data show us just how difficult that crisis has been, both at the aggregate level and looking at the experiences of individual households and families, which we should never lose track of in our clinical dedication to unbiased analysis. The data show us how far we have come to date in combating and recovering from that crisis. But they also point toward the further steps we can take to support the economy in the short run and toward the necessary and crucial investments we need to make in our nation's long-run future. Serious, credible analysis helps point policy in that right direction, for which I thank you and encourage you to continue that important endeavor.

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