FINANCE COMMITTEE QUESTIONS FOR THE RECORD
United States Senate
Committee on Finance
Nominations Hearing
April 30, 2009

Questions from Chairman Baucus

Questions for Mr. Krueger

Question 1:

Your impressive career has demonstrated a commitment to understanding and strengthening U.S. workers and labor markets generally. I commend that. Yet I do get concerned when I hear economists talk about America as if it consisted of the East Coast, West Coast, and maybe a state or two in between. Too often states like Montana and their concerns are overlooked. If confirmed, will you give states like Montana – and its workers, farmers, ranchers, and business leaders – the attention they deserve?

> **Answer:** Yes. I believe that one of the great strengths of the United States is the diversity among the states, including their economic activities and industries. One of my goals, should I be confirmed as Assistant Secretary for Economic Policy, would be to ensure that this diversity is properly reflected and accounted for in economic policy development.

Question 2:

Professor Krueger, some of your most recognized work has been the result of questioning conventional wisdom and government analysis, including your work on school vouchers, terrorism, and the minimum wage. Much of today's economic problems, I believe, could have been avoided had more people questioned the facts, dug a little deeper, or spoken up when something sounded too good to be true.

What aspects and lessons from your research will you bring to your new position? In what ways do you plan to bring your unconventional or counterintuitive thinking to your position? How will you keep your thinking and research fresh?

> **Answer:** I firmly believe that one needs to probe the facts and data when considering how to address economic problems, and one should not be beholden to any one theory or ideology. My record as a researcher has indicated my interest in finding empirical answers to difficult questions. Sometimes those results bring into question the dominant theory and that is something that I am not afraid to do.

I hope, if I am confirmed, to be able to continue to bring an empirical and fact-based perspective to the major economic issues that I would address. One thing that we all have become painfully aware of in recent months is that economic behavior – even in financial markets – sometimes defies the simple logic of rational-actor models. If confirmed, I would bring a willingness to critically evaluate, rather than simply accept, underlying assumptions of economic policy.

I plan on continuing to be involved in learning from and interacting with leading economists throughout the country, to continue to ask and find answers to questions and to guide my policy recommendations on those answers. The Treasury Department's office of Economic Policy has an excellent career staff and if I am confirmed I look forward to working with these colleagues to come up with innovative ideas and data-driven proposals.

Question 3:

Professor Krueger, you have conducted extensive research on workers and the various factors that influence their well-being. Given your work, how do you picture the American workers today, and how would you like to picture him or her four years from now? What policy tools can we most effectively employ to realize a better future picture for our workers?

Answer: The labor market has weakened considerably since the recession began in December, 2007. Far too many workers have lost their job and there has been increased uncertainty among those who have jobs about their job security. There has also been a sharp increase in the number of long-term unemployed and the number of workers who have become so discouraged they have stopped seeking work. These developments have profoundly lowered the material living standard and well-being of millions of American workers. It is my hope that four years from now the economy will have returned to full employment and those who want jobs will be able to find good jobs with wages and benefits that are appropriate to their skill set. In addition to increased employment and wages, it is my desire that workers have access to affordable health care.

To accomplish these objectives I hope to work on the President's health care agenda to increase affordability and availability of health insurance for workers and to reduce the cost of providing health care to businesses. I also believe that increased and more efficient investment in education and worker training programs can increase real wages, raise productivity, add jobs to the economy and create a more skilled and dynamic labor-force. If I am confirmed and able to work in implementing the President's agenda, I hope to contribute to helping improve the conditions for American workers over the next four years.

Questions from Senator Grassley

Question 1:

Dr. Krueger, if confirmed, how will you ensure that your research is free from political manipulation and is able to withstand scrutiny from all sides?

> **Answer:** I believe economics and statistics are powerful tools that can be used to improve people's lives. However, these tools are only effective if they are used in a rigorous and unbiased manner.
>
> Throughout my career I have tried not to be tied to a particular doctrine of economic thought in my work, and instead have sought to develop the best evidence possible to test theories of economic behavior. If confirmed I intend to remain true to this approach in the context of policy development and implementation.
>
> The Secretary asked me to serve in this position because he values economic research. If I felt otherwise I would have declined his offer to be considered for this position. I understand that, if confirmed, my most valuable service to the Secretary, President and the Nation will be to provide my best unbiased judgments based on the highest quality research available.
>
> If you and your colleagues in the Senate give me the opportunity to serve as Assistant Secretary for Economic Policy at the Treasury Department, I promise to justify your trust and confidence by maintaining a high standard of quality in the research I conduct.

Question 2:

The projected budget deficit for this year is roughly $1.7 trillion and the Senate passed a budget yesterday that claims to reduce the deficit to a massive $520 million by 2014. While we can agree the new administration inherited a portion of the deficit, with this new budget are we moving in the wrong direction by not doing more to cut spending and really bring down the deficit?

> **Answer:** At 12.3 percent of GDP in FY2009, the budget deficit does reach a very high level, but the Administration projects that the growing economy and the end of temporary spending measures and other policy developments will cause the deficit to decline sharply going forward. In the long term, the deficit remains at about 3 percent of GDP in the President's budget proposal, and the level of publicly held debt (net of assets we've acquired) is stable at about 60 percent of GDP in the long term (through 2019). That is still less than the current level in other major economies, like Japan.

Cutting spending to bring down the deficit now would be counterproductive; the economy would languish, unemployment would remain high, and the standard of living would decline. The budget seeks to balance many competing needs, including the need to rebuild our outdated infrastructure and modernize our electricity grid. Cutting this type of investment would be counterproductive to long-run economic growth. While it may reduce the deficit in the short run, without those investments, productivity would be lower and economic growth slower. The standard of living would be lower than it otherwise would have been.

The President and Treasury Secretary have emphasized that reducing the growth of health care costs is essential for improving the long-term budget outlook. I share this view. If confirmed, I look forward to working with Congress and the Administration to develop workable solutions to the challenge of rising entitlement spending.

Question 3:

What is the effect on the American economy and our standard of living of large and persistent Federal budget deficits?

Answer: An unchecked rise in federal debt poses a serious threat to the U.S. economy in the longer term. The consequences of an out-of-control rise in the federal debt are troublesome. As I stated in my written testimony, I believe it is "important for our long-term financial stability and economic prosperity that the U.S. returns to a fiscally sustainable path once this recession is behind us." Otherwise, federal borrowing could crowd out private investment. Beyond some point, the rise in borrowing would raise interest rates, hurt private investment, and, in the long run, reduce productivity growth, which would reduce our long-run rise in the average standard of living. I share the President's and Treasury Secretary's commitment to fiscal discipline.

Question 4:

During your nomination hearing, you answered a question from Senator Baucus about unconventional positions you have taken in your work by discussing your research on the minimum wage. In responding to Senator Baucus you said that your work on this issue has held up against criticism. Have you received any criticism of your work on the minimum wage that you believe holds some validity? If yes, please explain how your work could be improved, and if not, please summarize the criticism your work has been subjected to, and why it is not substantial.

<u>Answer</u>: Yes. I believe that all empirical work has limitations. Mine is no exception. An econometric criticism of my 1994 study with David Card that we both believe has some validity is that we computed conventional standard errors for our estimates, assuming independent errors. However, since that work the profession has become much more aware of the clustering phenomenon in errors in cross-sectional data which can render conventional standard errors inappropriate, and some have argued that a comparison of two states is subject to the criticism that errors are correlated within states. I believe the best solution to this criticism is to conduct additional comparisons of other states and other minimum wage increases.

<u>Question 5</u>:

Your work at the Treasury department will be used to produce and justify specific policies. During your hearing you responding to a question from Senator Hatch on using counterfactual questions to make policy decisions by saying that this was only one input and decisions should not be based on one input. How will you ensure that your work is given appropriate weight in policy formation and that conclusions drawn are appropriately utilized by the policy process?

<u>Answer</u>: I was honored to be asked by President Obama and Secretary Geithner to serve as Assistant Secretary for Economic Policy. I share their commitment to improving the lives of the American people and to working to strengthen the economy, create good jobs and to allow American workers a better opportunity to achieve prosperity for themselves and their families. If I am confirmed, I will continue to follow the approach that I have used throughout my career of not being afraid to ask difficult questions and to rely on the empirical answers to those questions to guide my thinking. In asking me to serve, Secretary Geithner has made it clear that he values my opinion and the process by which I seek to find answers to the difficult problems that our economy is confronting.

If I am confirmed, I will make it a top priority to bring the perspective of economics to bear on discussions throughout the Treasury and the interagency policy process. One way I will try to do this is by doing at the Treasury Department what I have tried to do throughout my career: be an honest broker of data and evidence, test assumptions and theories relentlessly, and use the tools of economics including cost-benefit analysis and counterfactual comparisons to make sound recommendations.

Questions from Senator Stabenow

Question 1:

No one understands restructuring more than my home state of Michigan. With auto sales near 30-year lows-77 percent of the Detroit Three auto jobs in Michigan have been eliminated. Michigan has the highest unemployment rate in the country with a total of almost 860,000 expected job losses in the state from 2000 to 2010. GM has recently announced that it will eliminate another 21,000 factory jobs, cut its network of 6,500 dealers almost in half and close 13 plants. As President Obama has said, the disaster that's hitting Michigan isn't a hurricane or a tornado, but that's not much consolation for the communities that have been devastated by this crisis. When a disaster hits a community, we respond with the resources they need to rebuild.

This is why I am pleased that the Administration has shown a commitment to help distressed auto communities in the same way we would step up after a hurricane or any other natural disaster. In your testimony, you say that "our long run prosperity depends first and foremost on our human capital." I completely agree and believe that we must invest in our workforce as part of the restructuring of the auto industry.

Question 1.A:
Given your experience with labor issues, how do you think we can help these displaced workers recover and transition into the high technology jobs of the future?

> **Answer:** The greatest help that economic policy can give to auto workers or any displaced workers is to help them not lose their job to begin with. Critical to this goal is having both a strong US economy and a strong American auto industry. The Recovery Act and Financial Stability Plan represent vital first steps toward strengthening job growth because without consumers spending and credit flowing it is hard for any industry to prosper in the face of historic declines in sales. The President has stated that a strong and viable automobile industry is in the nation's interest, and I share that view. As you pointed out however, there has been a sharp decline in auto industry employment and unfortunately we may not have hit the bottom yet. I support the kind of effort that Dr. Ed Montgomery, the newly appointed Director of Recovery for Auto Communities and Workers, is undertaking as part of the auto recovery efforts. In particular, he is attempting to bring all parties – workers, firms, unions, other private sector employers, community-based organizations, state and local governments, and foundations – to the table to maximize communication and cooperation and to develop innovative strategies for relief and recovery. Dr. Montgomery is an outstanding labor economist and was an outstanding Deputy Secretary of the U.S. Department of Labor. I am confident that he will ensure that communities and workers can

take full advantage of all available resources and to ensure that the funds are distributed quickly, efficiently and equitably.

My experience as a labor economist teaches me that a comprehensive effort, aimed at both retraining and community development, has the best prospect of helping a community to transition into taking advantage of the high-tech jobs of the future. If confirmed, I would welcome an opportunity to work with Dr. Montgomery and others in what I hope will be an unprecedented effort to help distressed communities and displaced workers recover from auto industry restructuring.

Question 1.B:

What efforts should the government take to protect the health care and pensions of auto workers and retirees as we work to restructure the industry?

Answer: My understanding is that the pension and health benefits of both current workers and retirees have been central components in the negotiations around restructuring GM and Chrysler.

I further understand that the Administration has been diligent in mitigating the effect of this restructuring on the benefits retirees receive. I believe that the Administration places a high priority on securing the pension benefits that retirees spent a lifetime working for, and ensuring that workers and retirees have access to the health care benefits they deserve. An important priority has been to bring all stakeholders to the table to work toward maintaining these provisions.

It is important to keep in mind that defined benefit pension plans are partially insured by the Pension Benefit Guaranty Corporation. I have written in the past that it is important to make sure that PBGC is adequately funded and that it invests its funds appropriately.

Question 2:

Double Standard: If confirmed, you will be involved in both the assistance provided to the automakers and the assistance provided to financial institutions. I would like to hear your thoughts on the double standard for the treatment of the automakers and the banks. Although, the automakers have received a fraction of the funds that the banks have received, they have been held to much more strict restructuring requirements than the banks that contributed to the credit crisis which has consequently crippled the auto industry.

Question 2.A:

What are your thoughts on this double standard and, if confirmed, what will you do to ensure that financial institutions receiving taxpayer funds are held to the same level of accountability that is required of the automakers?

> **Answer:** The challenges facing our largest banks and the American auto companies are very different and necessitate different strategies. In the case of the auto companies, the President has state a goal to ensure a strong, viable and competitive automobile industry. I share this goal. In the case of the financial institutions, the Administration is responding to systematic failures that threaten our entire economy. The goal is to shore up these financial institutions so that they continue lending, which will create business and jobs for American families, while protecting the taxpayers' investment.
>
> Secretary Geithner has said he is committed to holding financial institutions that receive taxpayer funds to the highest standards of accountability. If confirmed, I will work with Secretary Geithner and the administration on these important initiatives.

Question 3:

TALF: Due to the credit crisis, dealers do not have the credit necessary to finance inventory or cover capital costs. Motor vehicle financing companies lack the funds to support dealers and to make loans to consumers. We must address the lack of financing available in order to have a viable automobile industry in this country.

Question 3.A:
While the Term Asset-Backed Securities Loan Facility or TALF program has started to help the auto sector, it has only been used for retail consumer loans - and even this at a high price. However, due to the uncertainty facing the automobile industry, two of the three approved rating agencies have stated that they will not rate any portion of a loan to an auto dealer as AAA, regardless of the collateral. The result will have a ripple effect throughout the nation, beginning in my state, if dealers are unable to finance their inventory and finance it in an economical manner. If confirmed, you will have the opportunity to weigh in on this program.

> **Answer:** I believe that for the domestic auto industry to thrive, the availability and affordability of credit must be improved, not only for consumers but also for dealers to finance their inventories. The uncertainty facing the auto industry has caused banks and other credit providers to restrict the availability of credit to dealers. While dealer floorplan loans are eligible under TALF, the rating agencies must make their own independent determinations, and unfortunately, the rating agencies have become reluctant to rate floorplan securities AAA, regardless of the credit enhancement offered.

It is my understanding that the Federal Reserve and Treasury continue to review and study the eligibility requirements across asset classes, which may change in the future. I have been told that the auto task force is working on non-TALF solutions to this problem and if confirmed I intend to work closely with them.

Questions from Senator Hatch

Question 1:

Mr. Krueger, when writing in the New York Times in March 2006 about a cost vs. benefit analysis of going to war in Iraq, you noted that "credible estimation of counterfactual outcomes of alternative policies for cost-benefit comparisons has been a hallmark of modern economics." Do you believe that a "credible estimation of counterfactual outcomes of alternative policies for cost-benefit comparison" should also apply to the economic agenda, including the President's stimulus bill, TARP, and the budget? Do you believe that the cost the stimulus bill, which was $787 billion, TARP, which was $700 billion, and the FY2010 budget, which is estimated at over $3.6 trillion, will be outweighed by future benefits? Do you believe that there were alternative policies that would be less costly but provide the same benefits?

> **Answer:** The 2006 *New York Times* article that you cited was intended to explain a framework for analysis by discussing one piece of a very complex situation. The article discussed the details of a study by economists at the University of Chicago that attempted to understand the complexities of the war using a cost-benefit framework. The cost-benefit framework, as I wrote in that article, inevitably suffers from the problem "…that the counterfactual situation – meaning the outcomes that would have occurred had another policy been pursued – cannot be known for sure." In the piece I quoted former CBO director Doug Holtz-Eakin's insight that, "The question of whether the war was worth it hinges not on budget cost or economic cost, but on what do we gain in the way of genuine security and international standing." I do believe that cost-benefit analysis based on credible counterfactuals is a valuable input for guiding economic policy analysis. But, I am also keenly aware of the difficulty of finding a credible counterfactual, which is why I noted in the article that "cost-benefit comparisons of such weighty issues are more art than science."
>
> In the face of the enormous dislocations facing the financial system, it is a great challenge to estimate the damage that the economy would have sustained had TARP and the stimulus package not been enacted. This is a challenge that will occupy researchers for years to come. The lack of an unambiguous counterfactual prevents one from applying the cost-benefit framework in the standard way. Questions about the effectiveness of TARP and the other programs you cited are important, and if confirmed I will work to improve our overall understanding of these programs and their effects.

Question 2:

In an article published in August 2004, you stated "there is little question that union jobs pay more than the going rate for workers of a given skill level." Recently, it has been reported that Treasury officials are working to convince debtors to come up with a critical deal to reduce Chrysler's debt and reports this morning indicate that negotiations between the Treasury and Chrysler have faltered. Do you believe that it is imperative for the United Auto Workers to make concessions in salary and benefits to maintain the survival of the auto industry?

> **Answer:** I have not been directly involved in any of the decisions regarding the future of Chrysler. However, I know that the President and Secretary Geithner are both dedicated to having a strong, viable American automobile industry. The process of shaping Chrysler's role in that future is still ongoing. As the President has said, in these difficult times everybody will need to make concessions. Stakeholders in the automobile industry are no exception. My understanding is that the UAW has already made important and difficult concessions on wages, benefits, and retiree health care.

Question 3:

Many Americans, as demonstrated this month through TEA parties, are asking if this greatly increased government spending will ever stop. After trillions of dollars for bailouts and other government spending, the President's budget makes no hard choices to reform runaway spending. I cannot see how the debt we are accumulating will be paid back without raising taxes. I believe it is time for us to take a stand on government spending. That is why I introduced legislation that would restrict Federal spending to the historical average of 20 percent of Gross Domestic Product. Do you think higher taxes are inevitable in order to pay for our growing debt?

> **Answer:** The U.S. economy is facing enormous challenges and it is important to distinguish between short-run policies that the nation needs to pursue to pull the economy out of the current deep recession and longer run policies that should be pursued to boost economic growth and maintain a vibrant economic system. The surge in spending that will occur in FY2009 and FY2010 are examples of policies that, in my view, should be pursued in the short run to bolster the economy. These, combined with the reduced receipts due to the recession, are adding considerably to the deficit in the short run -- the Administration's budget puts the deficit at 12.3 percent of GDP in FY2009. Yet as the economy recovers, receipts will recover, and money invested in the private sector through the financial stability plans will be paid back, and government spending will return to a lower level.

In the longer term, some forms of government spending and investment are needed to maintain long-term growth. For example, investment in infrastructure, modernizing the electricity grid, improving educational opportunities and programs to help cut rising health care costs would help boost productivity and raise long-term growth. Faster growth -- even with receipts fixed as a share of GDP -- will accommodate spending and help cut into the debt.

I agree with President Obama's statement in his Georgetown speech, "… our long-term deficit is a major problem that we have to fix." Hard choices will be required to address this problem. If confirmed, I would welcome the opportunity to work on these hard choices with you and others.

Questions from Senator Kyl

Question 1:

On July 24th, the minimum wage is scheduled to increase $0.70 from $6.55 to $7.25 per hour. According to the Congressional Budget Office (CBO), a higher minimum wage is an unfunded mandate on the private sector and state, local and tribal governments. CBO estimated that the current and scheduled increases in the minimum wage will cost the private sector $4.0 billion in 2009 and a combined $10.7 billion in 2010 and 2011. Furthermore, CBO estimated that the 2007 minimum wage increase would impose nearly $1 billion in additional labor costs on state, local and tribal governments between 2009 and 2011.

Question 1.A:

Would you agree that the scheduled increase in the minimum wage is likely to impose higher costs on private sector and government employers?

> **Answer:** I believe that a minimum wage increase is likely to raise the amount that private sector and government employers pay in total payroll. The effect on their costs is more difficult to determine because factors including employee morale, productivity and recruitment and retention costs can all be affected by the minimum wage, and such factors are likely to vary across employers.
>
> I do share your concern about employer costs in general, especially when those costs do not result in higher productivity or higher benefits for workers and society. This is why I think it is important that the Administration remain engaged in a wide range of policies that can be expected to reduce business costs. These include policies to lower health care costs and to increase access to credit.

Question 1.B:

Do current economic conditions warrant suspending the next scheduled increase in the minimum wage?

> **Answer:** One relevant consideration is that over 60 percent of people currently live in states where the state minimum wage is already above the federal minimum wage. This will attenuate the effect of the next scheduled federal minimum wage increase on wages.
>
> One of the conclusions I have drawn from previous studies on the minimum wage is that increases in the minimum wage primarily have an effect on the distribution of income and not on the efficiency of the economy. I am not aware of evidence in the current economic environment that would alter this conclusion.

<u>Question 2</u>:

The teenage unemployment rate at the end of 2006 stood at 14.7 percent. Since the last two scheduled increases in the minimum wage, teenage unemployment has increased to 21.7 percent, almost double the percentage point increase in the overall unemployment rate.

<u>Question 2.A</u>:
While the ongoing recession undoubtedly accounts for a large portion of the increase in the teenage unemployment rate, would you agree that the minimum wage increase has had at least some influence over the increase?

> **<u>Answer</u>:** Judging the effect of a minimum wage increase on unemployment in a recession is difficult because employment is likely to fall even absent a minimum wage increase, as you mentioned in the preface to your question. One technique that economists have used is to compare employment changes across states, where a national minimum wage increase can affect a large or small number of employees given differences in preexisting state wage distributions. Studies of the minimum wage increases that took place in 1990 and 1991 using this approach generally did not find that the minimum wage had harmful effects on employment.
>
> I suspect that the ongoing recession accounts for a large portion of the increase in the teenage unemployment rate, and perhaps all of it. The unemployment rate for adult men age 20 and over, a group very unlikely to be paid the minimum wage, increased by 126 percent from the end of 2006 to March 2009, while the increase for teenagers that you cited above was only 48 percent.
>
> From these figures it is not unambiguous that the minimum wage had an impact on the youth labor market apart from the effects of the recession.

<u>Question 3</u>:

Economists David Neumark of the University of California–Irvine, Mark Schweitzer of the Federal Reserve Bank of Cleveland, and William Wascher of the Federal Reserve Board examined how the minimum wage affects the incomes of families living near the poverty line. They concluded that a higher minimum wage does not lift low-income families out of poverty. "The answer we obtain to the question of whether minimum wage increases reduce the proportion of poor and low-income families is a fairly resounding "no." The evidence on both family income distributions and changes in incomes experienced by families indicates that minimum wages raise the incomes of some poor families, but that their net effect is to increase the portion of families that are poor and near-poor."

<u>Question 3.A</u>:

Do you think that increasing the minimum wage is the most effective policy Congress and the President can use to reduce poverty?

> **<u>Answer</u>:** In the current environment, I think the most effective way of reducing poverty is by getting the economy growing again in a sustainable way and stabilizing the financial system so that it supports recovery rather than weighs against it.
>
> In my 1994 book with David Card we concluded that "… our analysis points to a modest poverty reducing effect of the minimum wage." In the current environment, I believe the most effective way to reduce poverty would be to pursue policies that successfully stimulate growth in the economy.

Questions from Senator Enzi

Question 1:

Your scholarly research on labor market and education policies is well documented. As one of the most-cited academics in the field of economics, it is clear your work in these areas is highly regarded by your colleagues and worthy of the many outstanding academic prizes awarded to you. Your work in the fields of macroeconomics and finance is less obvious, however. Please summarize some of your recent investigations in these areas.

Answer: Although it is accurate that much of my research is on labor market and education policies, I have published scholarly research on a range of topics including macroeconomics and finance. Indeed, my most widely cited article according to scholar.google.com is titled, "Economic Growth and the Environment" (joint with Gene Grossman). This article, which has been cited 1,400 times, considers the effect of a nation's economic growth on various indicators of environmental quality from both a theoretical and empirical standpoint. Other research that I have conducted that falls in the field of macroeconomics includes my research on the Phillips Curve with Lawrence Katz ("The High Pressure U.S. Labor Market of the 1990s", The Brookings Papers on Macroeconomic Activity) and my book co-edited with Robert M. Solow, titled, The Roaring Nineties (Russell Sage Foundation Press, 2001). I have also studied macroeconomic topics concerning inflation ("Using Survey Data to Assess Bias in the Consumer Price Index," *Monthly Labor Review*, 1998) and I proposed a disequilibrium macroeconomic model in "Observations and Conjectures on the U.S. Employment Miracle" (with J.S. Pischke). Lastly, I would mention that labor market issues that I have researched extensively, such as unemployment, labor's share of national income and wage growth, figure prominently into modern macroeconomics.

I have also conducted and published research that falls in the field of finance. For example, my 2003 article with Kenneth Forston entitled, "Do Markets Respond More to More Reliable Labor Market Data? A Test of Market Rationality" was published in the *Journal of the European Economics Association*. This paper looked specifically at bond markets and attempted to understand what factors influence bond yields of various durations. In the paper we developed a theory for how rational Bayesian investors and markets should respond to new information, and then tested that theory with data from the U.S. Treasuries bond market. The paper is unique because the improvement in the precision of key information released on a specific day each month could be quantified from the sampling variability inherent in the employment estimate produced from the Bureau of Labor Statistics' monthly establishment survey. The sample size of that survey was increased dramatically, reducing sampling variability and the size of revisions, and thereby increasing the signal in the information released from the survey.

The main finding of that study was that the bond market does not appear to incorporate all of the new information in the way that would be predicted by a theory of rational agents. The bond market does respond to new macroeconomic information on employment, but as that information became more precise over time the market did not respond more strongly as would be expected by rational agents. Although it may not appear surprising today that financial markets do not always respond rationally to new information, at the time the conclusion was not widely held.