michael.e.feroli@jpmorgan.com

Economic Research Note

US: unemployment benefits, participation, and the Fed

- Extended unemployment benefits are scheduled to expire on January 1
- Expiration of these benefits could lower labor force participation
- This, in turn, would depress the unemployment rate, by perhaps 0.25%-0.50%-pt
- Any further decline in the unemployment rate could complicate the Fed's communications efforts

Funding for the Emergency Unemployment Compensation program (EUC) is scheduled to dry up on January 1. This program currently provides extended unemployment benefits for about 1.3 million enrollees, and its expiration could have a noticeable effect on the economic data, particularly as it relates to the labor market. This isn't the first time that EUC has been scheduled to lapse, and in the past Congress has found the funds to keep the program going. While we don't know how Congress will approach the upcoming expiration of EUC, major media sources are indicating that there is less support for extending EUC than there has been in the past.

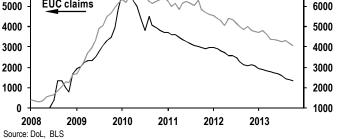
The labor market impact of EUC has been the topic of intense study in recent years, with much of the analysis focused on how this program has affected the unemployment rate. In principle, the presence of a program like EUC could raise the unemployment rate through two channels. First, there is an employment effect. Unemployment benefits may raise an individual's "reservation wage" —the minimum acceptable wage from a job offer—such that job search time is increased, and matches between unemployed individuals and vacant jobs is decreased. Second, there is a participation effect. Individuals who might otherwise leave the job market are incentivized to stay in the labor force as long as they receive unemployment benefits, which are only available to jobseekers.

Unemployment benefits can impact labor market outcomes through channels other than jobseeker behavior. For example, increased consumer spending due to jobless benefits could boost overall economic growth and thus job creation, while at the same time higher reservation wages could decrease employers' propensity to create new job vacancies—two channels we discuss further below.

Estimates of the effect on the unemployment rate vary, but the average estimate indicates about a 1%-pt increase in the

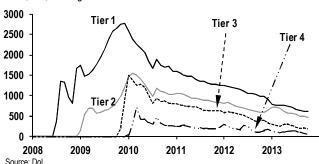


EUC claims and people unemployed at least 27 weeks



EUC claims by tier

000s, nsa, mo. avg.



unemployment rate due to EUC. These studies also differ in assessing the relative importance of the employment vs. participation effect, though the evidence seems to lean slightly in favor of the participation effect being more important. These estimates were generally formed earlier in the recovery, when the unemployment rate was higher and EUC enrolled greater numbers, creating some issues in using this research to form a point estimate of the effect of an expiration of EUC on the labor market. However, applying the results of some of this research would indicate that the lapsing of EUC could lower the unemployment rate by perhaps 0.25%-0.50%-pt, with much of the effect coming through reduced labor force participation, rather than increased employment. Setting aside the normative aspect of whether from a public policy perspective this is a desirable or undesirable outcome, such a fall in the unemployment and participation rates could create some tricky choices for Fed policymakers as they assess the health of the labor market.

A big program

In normal times, unemployment benefits are generally available for about 26 weeks. In 2008, as the economy began to weaken, EUC was established to provide additional aid for laid-off jobseekers who could not find work within the normal six-month period. In subsequent years EUC was expanded to include four tiers of extended benefits, with the maximum length of availability varying by state depending on the

Michael Feroli (1-212) 834-5523 michael.e.feroli@jpmorgan.com

Economic Research

US: unemployment benefits, participation, and the Fed November 27, 2013



prevailing unemployment rate in each state. While Congress has enacted extended benefits in past periods of economic weakness, EUC was generally much more extensive than those past programs, at one point helping to provide a maximum of 99 weeks of unemployment benefits to jobseekers in hard-hit states. Over the life of the program, EUC has paid out over \$225 billion, making it one of the more important federal responses to the economic weakness experienced in recent years.

One-handed economists, many of them

Given the size of the EUC program, there is little wonder that it has attracted considerable attention from researchers. Economists within the Federal Reserve System have been particularly active in trying to assess the impact of extended benefits on the labor market. The table on the right summarizes the Fed research that pertains to the extension of unemployment benefits. As noted earlier, the center point for most estimates indicates a 1%-pt increase in the unemployment rate due to the presence of extended benefits. To the extent that the research attempts to distinguish the employment effect from the participation effect, most, but not all, find the participation effect more important.

The dated nature of the research makes a direct application of these estimates problematic. One observation that could set an upper bound on thinking about a participation effect is to hypothesize that all 1.3 million EUC claimants exit the labor force after benefits expire in 1Q (again, should Congress allow that to happen). In that case, the unemployment rate would fall by 0.8%-pt, obviously an extreme example. Some of the Fed studies can help to narrow the range of outcomes. One of the more recent works (Farber and Valletta from the San Francisco Fed) indicates that about a fifth of long-term unemployment is due to extended benefits. With just over 4 million long-term unemployed recently, this would imply that the absence of extended UI benefits could lower the unemployment rate by 0.5%-pt. An even simpler application of the earlier research is to observe that EUC currently has about one-fourth the enrollment it did at its peak, and thus the participation and unemployment rate effect might be onefourth as large, or about 0.25%. Taking account of the assorted evidence, while the depressing effect on the unemployment rate from the expiration of EUC could range from 0.0% to 0.8%-pt, we see as more likely something in the middle: 0.25%-0.5%-pt.

But wait, there's more...

The research cited in the table generally looks at the impact on jobseeker behavior due to the presence of extended

Federal Reserve System research on labor market effects of extended unemployment benefits

Researcher	Quote/comment
Aaronson, Mazumder and Schechter (Chicago, 2010)	Extension of benefits raised the unemployment rate by 0.7%-point in late 2009
Elsby, Hobijn and Sahin (New York and San Francisco, 2010)	Extension of benefits raised the unemployment rate by between 0.7% and 1.8%-point in late 2009, though likely toward the bottom of this range
Valletta and Kuang (San Francisco, 2010)	"we calculate that, in the absence of extended benefits, the unemployment rate would have been about 0.4 percentage point lower at the end of 2009"
Fujita (Philadelphia, 2011)	"extended benefits in recent years have raised male worker' unemployment rate by 1.2 percentage points" Finds employment effect more important
Hu and Schechter (Chicago, 2011)	From Oct 2009 to Jan 2011 between 0.1 and 0.3% of the unemployment rate decline (or 10-25%) was due to unemployment benefit exhaustion. Finds participation effect more important
Mazumder (Chicago, 2011)	"extension of unemployment insurance benefits during the recent downturn can account for somewhere in the neighborhood of 1% point of the increase in the unemployment rate."
Nakajima (Philadelphia, 2011)	"the ongoing UI benefit extensions are found to have raised the unemployment rate by 1.4% points"
Farber and Valletta (San Francisco, 2013)	"substantial fraction (15-25%) of long-term unemploymentis due to the availability of extended UI benefits" Finds participation effect more important.
Ghayad (Boston, 2013)	Places an upper bound of one-half on the shift in the Beveridge curve attributable to unemployment benefits

Source: Various Federal Reserve System documents

unemployment benefits. However, other effects are possible. For example, researchers from the NY Fed (Hagedorn, Karahan, Manovskii, and Mitman) find a substantial decrease in employer job creation due to extended benefits. Another potential effect is through reduced spending by benefit recipients. EUC currently pays out benefits at around a \$20-25 billion annual rate; should that flow dry up, consumer spending could take a hit in 1Q, perhaps subtracting around 0.4%-pt from annualized real GDP growth in that quarter.

JPMorgan Chase Bank NA

Michael Feroli (1-212) 834-5523 michael.e.feroli@jpmorgan.com

Economic Research Global Data Watch November 27, 2013

J.P.Morgan

Analysts' Compensation: The research analysts responsible for the preparation of this report receive compensation based upon various factors, including the quality and accuracy of research, client feedback competitive factors, and overall firm revenues. Principal Trading: JPMorgan and/or its affiliates normally make a market and trade as principal in fixed income securities discussed in this report. Legal Entities: J.P. Morgan is the global brand name for J.P. Morgan Securities LLC (JPMS) and its non-US affiliates worldwide. J.P. Morgan Cazenove is a brand name for equity research produced by J.P. Morgan Securities plc; J.P. Morgan Equities South Africa Proprietary Limited; JPMorgan Chase Bank, N.A., Dubai Branch; and J.P. Morgan Bank International LLC. J.P.Morgan Securities Inc. is a member of NYSE and SIPC. JPMorgan Chase Bank, N.A. is a member of FDIC. U.K.: JPMorgan Chase N.A., London Branch, is authorised by the Prudential Regulation Authority and is subject to regulation by the Financial Conduct Authority and to limited regulation by the Prudential Regulation Authority. Details about the extent of our regulation by the Prudential Regulation Authority are available from J.P. Morgan on request. J.P. Morgan Securities plc (JPMS plc) is a member of the London Stock Exchange and is authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority. J.P. Morgan Equities South Africa Proprietary Limited is a member of the Johannesburg Securities Exchange and is regulated by the Financial Services Board. J.P. Morgan Securities (Asia Pacific) Limited (CE number AAJ321) is regulated by the Hong Kong Monetary Authority. JPMorgan Chase Bank, N.A., Singapore branch and J.P. Morgan Securities Singapore Private Limited are regulated by the Monetary Authority of Singapore. JPMorgan Securities Japan Co., Ltd. is regulated by the Financial Services Agency in Japan. J.P. Morgan Australia Limited (JPMAL) (ABN 52 002 888 011/AFS Licence No: 238188) is regulated by ASIC and J.P. Morgan Securities Australia Limited (JPMSAL) (ABN 61 003 245 234/AFS Licence No: 238066) is regulated by ASIC and is a Market, Clearing and Settlement Participant of ASX Limited and CHI-X. J.P.Morgan Saudi Arabia Ltd. is authorized by the Capital Market Authority of the Kingdom of Saudi Arabia (CMA), licence number 35-07079. General: Information has been obtained from sources believed to be reliable but JPMorgan does not warrant its completeness or accuracy except with respect to disclosures relative to JPMS and/or its affiliates and the analyst's involvement with the issuer. Opinions and estimates constitute our judgment at the date of this material and are subject to change without notice. Past performance is not indicative of future results. The investments and strategies discussed may not be suitable for all investors; if you have any doubts you should consult your investment advisor. The investments discussed may fluctuate in price or value. Changes in rates of exchange may have an adverse effect on the value of investments. This material is not intended as an offer or solicitation for the purchase or sale of any financial instrument. JPMorgan and/or its affiliates and employees may act as placement agent, advisor or lender with respect to securities or issuers referenced in this report. Clients should contact analysts at and execute transactions through a JPMorgan entity in their home jurisdiction unless governing law permits otherwise. This report should not be distributed to others or replicated in any form without prior consent of JPMorgan. U.K. and European Economic Area (EEA): Investment research issued by JPMS plc has been prepared in accordance with JPMS plc's Policies for Managing Conflicts of Interest in Connection with Investment Research. This report has been issued in the U.K. only to persons of a kind described in Article 19 (5), 38, 47 and 49 of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2001 (all such persons being referred to as "relevant persons"). This document must not be acted on or relied on by persons who are not relevant. Any investment or investment activity to which this document relates is only available to relevant persons and will be engaged in only with these persons. In other EEA countries, the report has been issued to persons regarded as professional investors (or equivalent) in their home jurisdiction. Japan: There is a risk that a loss may occur due to a change in the price of the shares in the case of share trading, and that a loss may occur due to the exchange rate in the case of foreign share trading. In the case of share trading, JPMorgan Securities Japan Co., Ltd., will be receiving a brokerage fee and consumption tax (shouhizei) calculated by multiplying the executed price by the commission rate which was individually agreed between JPMorgan Securities Japan Co., Ltd., and the customer in advance. Financial Instruments Firms: JPMorgan Securities Japan Co., Ltd., Kanto Local Finance Bureau (kinsho) No. 82 Participating Association / Japan Securities Dealers Association, The Financial Futures Association of Japan, Type II Financial Instruments Firms Association and Japan Investment Advisers Association. Australia: This material is issued and distributed by JPMSAL in Australia to "wholesale clients" only. This material does not take into account the specific investment objectives, financial situation or particular needs of the recipient. The recipient of this material must not distribute it to any third party or outside Australia without the prior written consent of JPMSAL. For the purposes of this paragraph the term "wholesale client" has the meaning given in section 761G of the Corporations Act 2001. New Zealand: This material is issued and distributed by JPMSAL in New Zealand only to persons whose principal business is the investment of money or who, in the course of and for the purposes of their business, habitually invest money. JPMSAL does not issue or distribute this material to members of "the public" as determined in accordance with section 3 of the Securities Act 1978. The recipient of this material must not distribute it to any third party or outside New Zealand without the prior written consent of JPMSAL. Canada: The information contained herein is not, and under no circumstances is to be construed as, a prospectus, an advertisement, a public offering, an offer to sell securities described herein, or solicitation of an offer to buy securities described herein, in Canada or any province or territory thereof. Any offer or sale of the securities described herein in Canada will be made only under an exemption from the requirements to file a prospectus with the relevant Canadian securities regulators and only by a dealer properly registered under applicable securities laws or, alternatively, pursuant to an exemption from the dealer registration requirement in the relevant province or territory of Canada in which such offer or sale is made. The information contained herein is under no circumstances to be construed as investment advice in any province or territory of Canada and is not tailored to the needs of the recipient. To the extent that the information contained herein references securities of an issuer incorporated, formed or created under the laws of Canada or a province or territory of Canada, any trades in such securities must be conducted through a dealer registered in Canada. No securities commission or similar regulatory authority in Canada has reviewed or in any way passed judgment upon these materials, the information contained herein or the merits of the securities described herein, and any representation to the contrary is an offense. Korea: This report may have been edited or contributed to from time to time by affiliates of J.P. Morgan Securities (Far East) Ltd, Seoul branch. Brazil: Ombudsman J.P. Morgan: 0800-7700847/ouvidoria.jp.morgan@jpmorgan.com. Revised September 28, 2013. Copyright 2013 JPMorgan Chase Co. All rights reserved. Additional information available upon request.