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Economics Group

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Monitoring the Risk of Recession: 25 Percent Probability

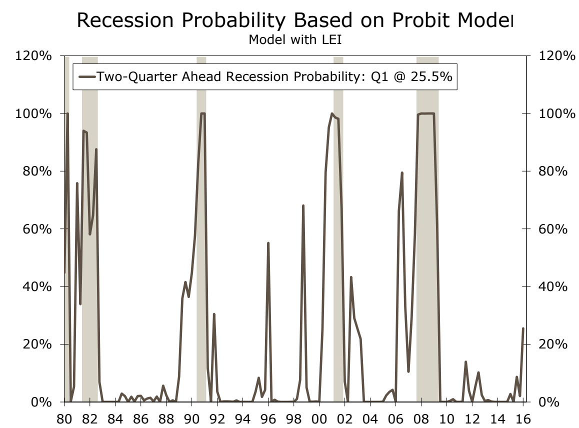
Recent market volatility and data from the factory sector raise the question: Is the U.S. economy headed for a recession? Based on our preferred model, the chance of recession is about 25 percent over the next six months.

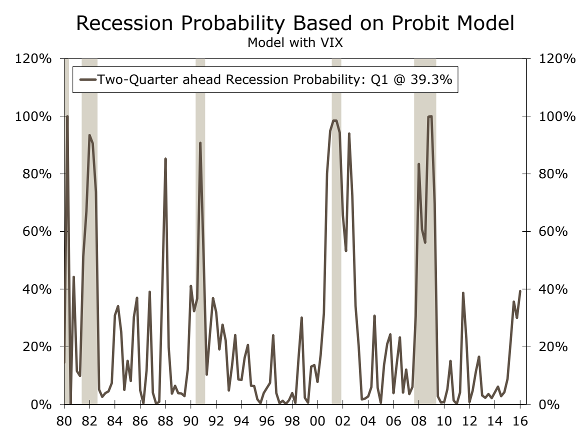
Predicting the Probability of a Recession

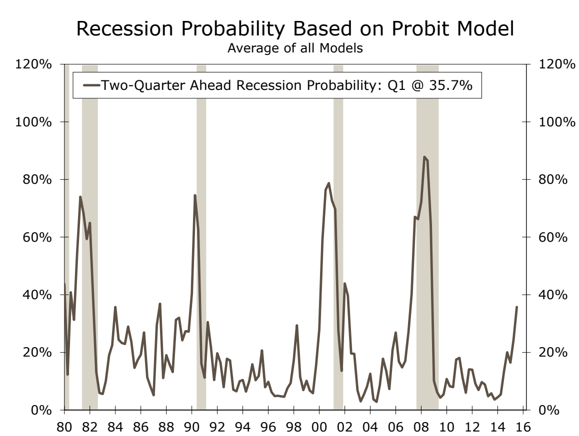
With two months of data for the current quarter, our preferred recession model remains elevated relative to the past few years. The Probit model we use to predict the chances of a recession estimates (using a handful of predictors) the probability of a recession during the next six months. The model utilizes the Leading Economic Index, the S&P 500 index and the Chicago-PMI employment index as predictors. Our model has served us well; it started predicting (in real-time) a significantly higher probability of recession back in 2007 (58 percent chance of a recession in Q3 2007). In addition, we never joined the "double-dip" camp back in 2010-2012, largely because our Probit model did not indicate a high-likelihood of recession during that time period. Using the most recent data (through February 2016), our model suggests an elevated probability of a U.S. recession during the next six months (about 25 percent, top graph). The reason for the elevated probability is that the trend for the predictors, such as the S&P 500 and the LEI, has been weak the past few months. Clearly, the probability is well below the threshold of above 50 percent for a recession call, but it is the highest reading in the post-Great Recession era.

In addition to our preferred model, we have built eight different Probit models to capture the range of recession risk estimates posed by alternative model specifications. In a recent report on recession probabilities, we presented the results from all models, and in this update we share a few select results (full results are available upon request). One model, which utilizes the VIX to capture financial market volatility, suggests around a 39 percent probability of recession (middle graph). One way to summarize the results from these models is to average the probabilities and then examine the historical performance of this average. The current average probability is about 36 percent, and this method has predicted all recessions successfully since 1980 without producing any false positives (bottom graph).

That said, there is some reason for caution regarding this higher probability reading. The Q1 2016 probability is only based on January and February 2016 data (two months of the quarter), and monthly probability can be rather volatile. That is one reason we give more importance to quarterly probabilities. If by the end of Q1 the recession probability stays above 20 percent, then that would be a more serious sign for decision makers, as the quarterly probability has not crossed the 20 percent line in the post Great Recession era. At present, we are not calling for a recession within the next six months. However, given that the recession probabilities based on our preferred model and average of all models are somewhat elevated, it is not wise to entirely dismiss recession risk. We will closely monitor the upcoming data in the coming weeks and months to assess where the U.S. economy is headed.







Source: Wells Fargo Securities, LLC

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