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Economics Group

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Does the New LEI Alter Recession Predictability Accuracy?

The recession probability model based on the new Leading Economic Index successfully predicts all recessions since 1979, but it has more false-positives compared to our original model, which uses the old LEI.

The LEI: New versus Old

The Conference Board has comprehensively revised the Leading Economic Index (LEI) for the United States (top graph). The LEI is considered one predictor of recession, leading to the question of whether the new LEI has more predictive power than the old one.

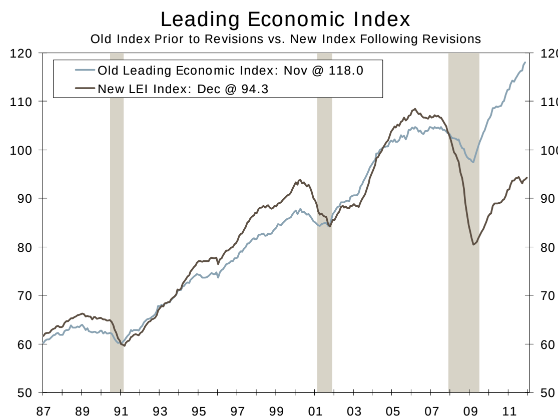
The Recession Probability Model with the Old LEI

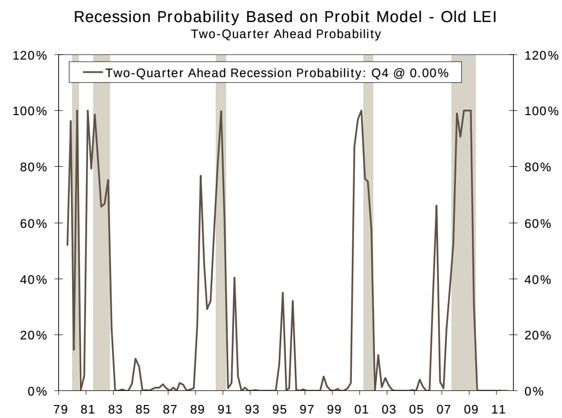
The LEI is one of the predictors used in our recession probability model and we believe it has more predictive power than the other individual predictors. Our approach has been peer reviewed and published in *Business Economics*, (see "Forecasting U.S. Recessions with Probit Stepwise Regression Models", January 2008 edition). The Probit model based on the old LEI continues to suggest little chance of a recession in the next two quarters (middle graph). This model has served us well in the past and has kept us out of the double-dip camp over the past two years.

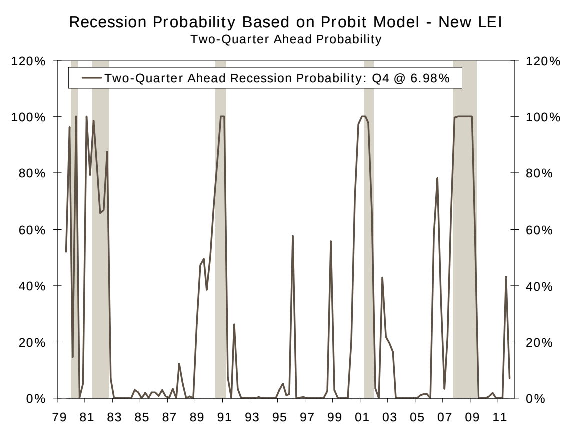
The Recession Probability Model with the New LEI

The recession probability model with the new LEI generates a low probability of recession, currently 6.98 percent. However, note that the probability estimate of a recession was significantly higher in the third quarter of 2011 at 43.1 percent (bottom graph). This raises the question of whether the new LEI is a reliable indicator to predict recessions, while avoiding false-positives. The answer comes with a caution; the Probit model based on the new LEI has more false-positives, or it predicts a higher probability of a recession with no subsequent recession. Since 1979, if we set 50 percent as the benchmark for a recession, then the new model has five false-positives compared to three from our previous model. Both models have successfully predicted all recessions since 1979.

Using the recession probability based on the Probit models as a criterion, we do not see higher recession predictability in the new LEI versus the old, as both models have successfully predicted all recessions since 1979. Based on third quarter data, one reason why the new model predicted a higher recession probability compared to the old model is that the monthly average for the new LEI in the third quarter was -0.37 percent versus 0.33 percent for the old LEI. The drop in value for the new LEI may be due to: (a) the S&P 500 index was down 11.4 percent from July to September; (b) the average net contribution from consumer expectations was -0.21; and (c) the average net contribution from the Leading Credit Index was -0.04 for the third quarter. This suggests to us that the new LEI may have over-adjusted for financial sector weakness during the third quarter, which biased the Probit model estimate. On the other hand, real GDP grew in the third and fourth quarter at annualized rates of 1.8 and 2.8 percent, respectively. Overall, the new LEI helps predict recessions, but comes with a risk of false-positives.







Source: The Conference Board and Wells Fargo Securities, LLC

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