

# DATING US BUSINESS CYCLES WITH MACRO FACTORS

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## ABSTRACT

Latent factors estimated from panels of macroeconomic indicators are used to generate recession probabilities for the US economy. The focus is on current (rather than future) business conditions. Two macro factors are considered: (1) a dynamic factor estimated by maximum likelihood from a set of 4 monthly series; (2) the first of eight static factors estimated by principal components using a panel of 102 monthly series. Recession probabilities generated using standard probit, autoregressive probit, and Markov-switching models exhibit very different properties. Overall, a simple Markov-switching model based on the big data macro factor generates the sequence of out-of-sample class predictions that better approximates NBER -recession months. Nevertheless, it is shown that the selection of the best performing model depends on the forecaster's relative tolerance for false positives and false negatives.

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