

## Leading indicators for Iran's GDP

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### Abstract

In this paper, we examine all the macroeconomic time series which can be considered as potential leading indicators of the state of real activity in Iran, to find the best leading indicators. According to Einian and Barakchian (1393), Non-oil GDP show the fluctuations of real activity in Iran better than other variables. Hence, in our study we consider Non-oil GDP as the target variable and the dating of the business cycles are identified following Einian and Barakchian (1393). 265 macroeconomic variables, obtained from the data sets released by the Central Bank of Iran, are used to construct 1590 potential leading indicators; 6 kinds of transformations are applied to each variable in order to generate 1590 series. These time series are quarterly series which span the period of 1367Q1 to 1387Q2. The number of Missing Points, False Alarm Points, Late Alarm Points, Concordance, and Standard Deviation in forecasting peaks and troughs are used as the main criteria to evaluate the potential leading indicators. The results show that no variable does well in terms of all the criteria; however, there exist 20 variables which performs well in forecasting peaks and troughs and there exist 6 variables which perform well in terms of the standard deviation of the forecasts. Therefore, selecting a set of potential leading indicators to construct a composite leading indicator for non-oil GDP depends entirely on the importance of each criterion for the institutes/researchers who develop the composite leading indicator. We also evaluate the potential leading indicators based on their release lags in the Central Bank's publications. Samaee and Atrianfar (1390) have shown that the national accounts' data have the longest lag (more than 6 months on average), and therefore, we suggest to diminish their role in constructing the composite leading indicator.

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