

**Calculation of BOK Coincident Indicator (BOK-COIN)
in Comprehensively Utilizing
Real Economic and Financial Information
=> A New Real-Time Indicator (BOK-COIN) of Korean
Economic Activity**

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Identifying current economic activity based on GDP growth is often difficult because it usually contains non-cyclical fluctuations. To tackle this problem, this paper develops a real-time indicator of economic activity, the BOK Coincident Indicator (hereinafter ‘BOK-COIN’), which allows users to assess the underlying monthly movements of GDP growth.

BOK-COIN is defined as GDP growth excluding non-cyclical fluctuations and short-term fluctuations with cycles of less than one year, and is computed by the following two steps; The first is to estimate common factors under two different frequencies: mid-to-long run and short run. The common factors represent co-movements of a wide range of real economic and financial variables, and are estimated using generalized dynamic factor analysis. We treat non-cyclical fluctuation as the GDP growth that is unrelated to these factors. BOK-COIN is then computed by projecting GDP growth on the factors and extracting the components that belong to the mid-to-long run factors. Our method is similar to that of EURO-COIN, but differs in that we avoid using band pass filters to thus allow users to include recent data in the second step. As a result, BOK-COIN is able to respond more flexibly to sharp changes in economic conditions.

Our results show that BOK-COIN properly reflects the underlying movements of GDP growth in Korea, and maintains consistency, unlike other real-time

indicators that are usually subject to later revisions. In addition, it is analyzed that BOK-COIN is more closely linked with monetary policy than is GDP growth, and effectively tracks turning points in the business cycle.

BOK-COIN has been showing an upward trend since the second quarter of 2016, indicating continuation in the trend of recovery in the Korean economy. Considering the negative non-cyclical factors of the latter half of last year, such as Brexit, political uncertainties, and the conflict with China associated with Korea's deployment of THAAD, GDP growth reflecting cyclical factors only appears to have been higher than actual growth in 2016, and it is expected that growth in 2017 has exceeded that in 2016. However, since the trend of recovery seems less strong than in the past, it is necessary to keep a close watch as to confirm whether the current economic recovery is robust and stable.

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