



KR – South Korea

The Bank of Korea publishes a nationwide house price index for all types of dwellings, new and existing, produced by the Kookmin Bank. The Kookmin Bank is a descendant of the Korean Housing Bank (KHB). The KHB was privatized after the 1997 crisis in South Korea, and it merged to become the Kookmin Bank in 2001. The mix-adjustment/stratification method is used to construct the Kookmin Bank index. Dwellings are grouped according to location and type. Three types of dwellings are identified: detached dwellings, row houses (terraced houses) and apartments. The average purchase price for each group is then determined using real estate survey data. The dwelling stock from June 2011 is used as the base weight. The Kookmin Bank data starts in January 1986 and is released monthly. We average the monthly observations (with a simple arithmetic average) to obtain quarterly observations.

In order to reflect house prices prior to 1986, we splice the current Kookmin Bank house price series with a historical annual index documented by Kyung-Hwan Kim (1993). The data reported in Kim (1993) is constructed by combining three separate annual price indexes published by the KHB. The house price index for 1982-1990 is based on information provided by real estate agents, based on actual transactions and estimated prices. Neither the property type nor the vintage could be determined from the source. The index for 1978-1981 is based on the KHB standard construction cost, excluding land. The index for 1974-1977 is a weighted average of the total factor construction cost (including land) for single-family dwellings and apartments. The priced unit for both construction cost series could not be determined from the source. We interpolate this series at quarterly frequency using the quadratic-match average method.

We splice the Kookmin Bank series with the growth rates of the interpolated historical series from Kyung-Hwan Kim (1993). The house price series are not seasonally-adjusted by the source. We seasonally-adjust the spliced series using the BSTS model and re-base it to 2005=100. We deflate this house price series using the Personal Consumption Expenditure (PCE) deflator obtained from the OECD Economic Outlook database.

We complete the South Korean data by including a Personal disposable income (PDI) series, reported in *per capita* terms. To create the PDI *per capita* series we divide household disposable income by the working-age population. Both series were available at a quarterly frequency and obtained from the OECD Outlook database. A change in the quarterly PDI series obtained from the OECD Economic Outlook database occurred in December 2011. This affects our calculations for the February 2012 update and all future updates. The series is now reported at an annual frequency.

The source of the PDI data and working age population data has changed. This affects the PDI *per capita* series for the 2012 first quarter update and all subsequent updates. PDI data is now obtained from the Bank of Korea. The series is reported at an annual frequency and begins in 1975. Current working age population data is now obtained from the OECD Main Economic Indicators database. It is reported at a quarterly frequency and begins in the first quarter of 2003. We use the quarterly growth rates of the discontinued working age population series from the OECD Outlook 90 database to extend the series to the first quarter of 1975.

We use the PCE deflator to report the PDI series in real terms. Both nominal and real measures are re-based to 2005=100. Since the PDI *per capita* is now derived using annual data on household disposable income, we use the BSTS model to nowcast one extra annual observation, which can be jointly interpolated. Nowcasted values will be subsequently replaced as soon as the official yearly data becomes available. We use the same approach in subsequent updates of the dataset.

References:

Kim (1993): “Housing Prices, Affordability and Government Policy in Korea.”

Information Resources:

KB Financial Group Inc. (formerly Kookmin Bank Corp.)
<https://www.kbfg.com/Eng/Report/Fbannual/Kbfg/2012/list.jsp>

Bank of Korea (Economic Statistics System database, ECOS)
http://ecos.bok.or.kr/EIndex_en.jsp

Acknowledgements: Joong-Shik Kang from the IMF.