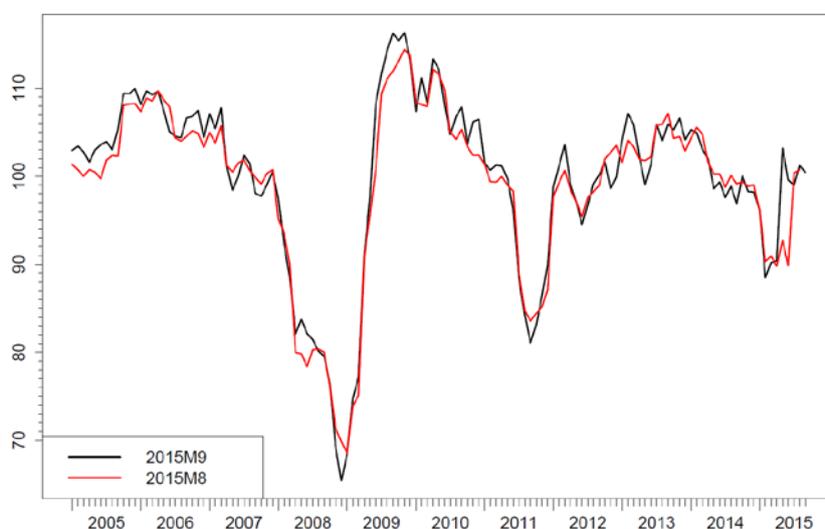


Background information KOF Economic Barometer

September 2015 revision from vintage 2014 to vintage 2015

The KOF Economic Barometer is a composite leading indicator for the Swiss economy. The indicator variable selection and their weights are updated annually after the release of the previous year's annual Gross Domestic Product (GDP) data by the Swiss Federal Statistical Office. The 2015 revision took place in September. Our new reference series is the smoothed continuous growth rate of Swiss GDP according to the new System of National Accounts ESGV 2010, released at the end of August 2015, which takes into account the release of the previous year's annual Gross Domestic Product (GDP) data by the Swiss Federal Statistical Office. The 2014 vintage, which was published up to August 2015, comprised 217 indicator variables, selected from a pool of 479 candidates. The latest vintage 2015 replaced the 2014 vintage in September 2015. It is based on 238 indicator variables selected from the pool of 420 candidates, obtained after removing KOF surveys related to price developments as well as firms' assessment of monthly changes in inventories. Compared to the previous vintage, there are 54 indicators that were newly selected and 33 indicators that dropped out.

The current and previous vintages are shown in the following graph. The resulting revision affects the whole time span covered by the Barometer due to several factors related to the changes in the reference series and the 12 months forward move of the in-sample period used for the selection of the indicators, the resulting indicator selection, the update of seasonal factors as well as the modification in indicator weights and scaling parameters. Compared to the previous annual update of the KOF Economic Barometer, an additional source of revisions comes about due to the implementation of the statistical procedure, based on the Expectation-Maximisation (EM) algorithm that allows us to impute monthly values for the indicators sampled at a quarterly frequency using the information contained in the other monthly indicators. Previously, the values, released once per quarter, were kept constant in the next two months until the release of a new quarterly value. With the help of the EM algorithm, data points are interpolated also for those months during which no quarterly indicators are released. This increases the lead of the Barometer, albeit at the price of a slight increase in its overall volatility.



The change from the 2014 to the 2015 vintage resulted in a mean absolute revision of 1.67 points (calculated from January 2005, the start of the in-sample period used for indicator selection, to December 2013, the last common in-sample data point for both vintages). Given that the average of the barometer equals 100, this is a reasonably small revision. The estimated correlation of 0.98 between these two vintages is also rather high. In order to single out the effects of the introduction of the EM algorithm for imputation of the data points for the variables sampled at the quarterly frequency, we also calculated the mean absolute revision for an imaginary Barometer version. This version is computed in the same fashion as the current September vintage but without the use of the EM algorithm, i.e., the values of the quarterly indicators are kept frozen during the months in which no new releases are published. Using the same sample period (2005M1 until 2013M12), the corresponding mean absolute revision statistics is 1.07, which amounts to about 64 per cent of the factual magnitude mentioned above. Accordingly, all other changes (indicator selection, moving window, seasonal adjustment, weights, scaling parameters) add only about an extra third to the mean absolute revision due to this annual update.