

In the Name of God

**Extracting Uncertainty Bands (Fan Charts)
of Inflation Forecasts in 1386**

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Abstract

The paper tries to show how the balance of risk for various macro variables could be linked to inflation uncertainty. In other words, we will show how inflation uncertainty is implied by uncertainties in macroeconomic variables and this function is important in the evaluation of inflation expectation formation, as inflation expectation has a high elasticity with respect to changes in the other macroeconomic variables which could lead to derivation of fan charts for inflation forecast. The standard deviation and the skewness of distribution functions of macroeconomic variables can normally be derived from historical observations of these variables. However, this study concentrates on judgmental uncertainties irrelevant to past historical performance of macroeconomic variables which may lead to lower or higher uncertainties in the variables. Moreover, the judgmental evaluation of risk balances (symmetry/asymmetry of risks) in terms of macroeconomic distribution function skewness could be evaluated. In conclusion, the fan chart of inflation forecast on quarterly basis is provided.

Keywords: Inflation Forecast, Fan Chart, Inflation Uncertainty, Two-piece Normal Distribution, Skewness