

3.841, which is lower than the computed values. Hence, there are not significant differences between the ex-ante probability and the real probability at a 5% significance level.

The statistics of chi-square test of unconditional coverage have the values 36.63 for the bootstrap BCA intervals and 20.21 for the intervals based on the historical forecasting error method.

The computed values are higher than the critical one, which indicates a low degree of goodness between the ex-ante fixed probability and the empirical one.

4. CONCLUSIONS

The uncertainty assessment became very important nowadays because of the effects of economic crisis determined by the high degree of forecast uncertainty. For quarterly inflation rate in Romania we proposed more ways of evaluating the forecasts uncertainty.

We explained the evolution of the transformed data series of the inflation using an AR(1) model. The uncertainty was evaluated by making the decomposition of the forecasts variance in the first two quarters of 2013. The total variance and its components registered a decrease in the second quarter compared to the first one.

The Monte Carlo simulations were used to assess the uncertainty, evaluating the probability that the inflation prediction in a quarter changes compared to the previous quarter. There is a probability of 0.4236 that the inflation rate in the last quarter of 2014 be greater than the inflation rate in the previous quarter with 0.854 percentage points. On the other hand, we assume with a probability of 0.4188 that the inflation registered in the third quarter of 2014 is greater than that of the second quarter of 2014.

For forecast intervals, a form of highlighting the uncertainty of predictions, we used to methods of forecasting: bootstrap BCA and the historical errors method based on the optimal forecast. According to likelihood ratio tests and chi-square tests, there are significant differences between the ex-ante probability associated to each interval (0.95) and the actual probabilities.

In a future research we might extend the study on other macroeconomic variables like real GDP rate or interest rate. On the other hand, a comparative analysis with density forecasts would be very useful.

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APPENDIX 1

Breusch-Godfrey and White test

Breusch-Godfrey Serial Correlation LM Test:				
F-statistics	2402	2.51	Prob. F(1,47)	0.1197
Obs*R-squared	7144	2.53	Prob. Chi-Square(1)	0.1112
Heteroskedasticity Test-White				
F-statistic	121115	0.	Prob. F(2,47)	0.8862
Obs*R-squared	256369	0.	Prob. Chi-Square(2)	0.8797
Scaled explained SS	978739	0.	Prob. Chi-Square(2)	0.6130