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INTERPOLATING FORECAST ERRORS FOR ASSESSING UNCERTAINTY IN MACROECONOMIC FORECASTS: AN ANALYSIS FOR MALTA

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This paper presents an analysis of forecasting errors of the Economic Policy Department's forecasts for Malta. Based on this analysis an approach for carrying out a risk assessment of macroeconomic forecast is proposed. In particular, this paper contains:

1. an evaluation of the Economic Policy Department's macroeconomic forecast errors since 2004,
2. a comparison of Economic Policy Department's forecasting performance with that of the European Commission and the Central Bank of Malta,
3. an assessment of Malta's forecast performance compared with that of other European economies,
4. an evaluation of possible biases in the forecast, and finally,
5. a methodology for the illustration of forecast uncertainty and the balance of risk surrounding our forecast through the use of Fan Charts.

The publication is in line with the requirements of Council Directive 2011/85/EU of the European Union on the requirements for budgetary frameworks of the Member States. As from 2014, the Directive binds Member States to guide their macro-economic and budgetary forecasts by the performance of past forecasts and endeavour to take into account relevant risk scenarios. The risk assessment developed in this paper follows the methodology suggested by Selim Elekdag and Prakash Kannan (2009) in their seminal IMF working Paper and will become a regular feature of the Economic Policy Department's published macroeconomic forecasts.

Main Results

The paper does not find any significant biases in the nominal and real GDP growth forecasts. However it finds a clear tendency to underestimate government expenditure and a tendency to overestimate investment. There is some evidence of a tendency to

underestimate consumption in the current year. Whilst the paper finds some evidence of a tendency to underestimate exports in current year, there is also an opposing tendency to underestimate imports such that no statistically significant biases are identified for net exports. Such biases are generally common to all three institutions who carry out forecasts of the Maltese economy and the forecasting performance is not found to be significantly different or less efficient from that of the other institutions surveyed.

It is also interesting to note that if one excludes the recession of 2009 and the subsequent recovery in 2010, Malta's forecasting performance is comparable to much larger and less open economies. If one includes crisis years, the forecasting performance naturally deteriorates in view of the small sample size of observations, but official macroeconomic forecasts are still the best among small open economies (namely Luxembourg and Ireland).