Forecasting the US CPI inflation (using judgment)

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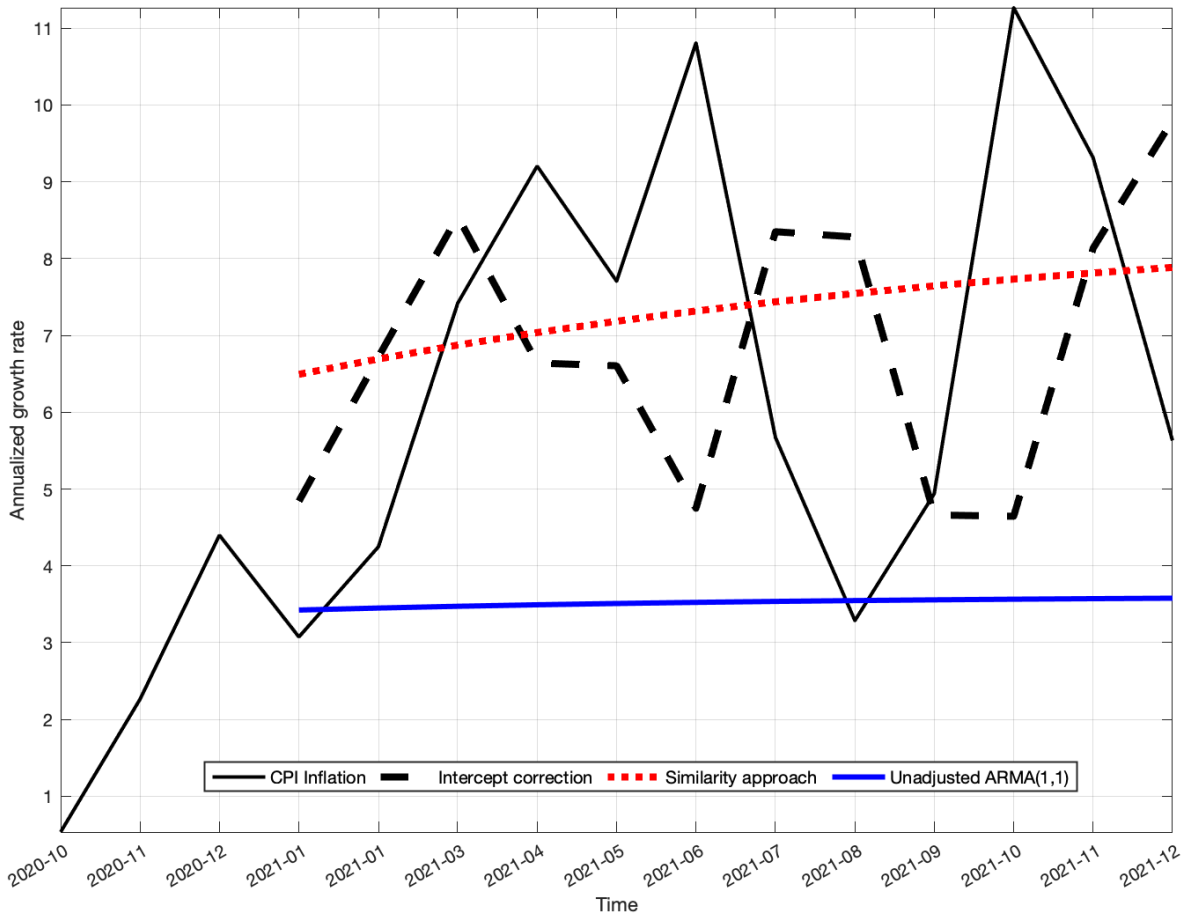
2021 CPI inflation adjusted and unadjusted ARMA(1,1) forecasts



Detailed forecasts

Date	CPI inflation	Intercept correction	Similarity approach	Unadjusted ARMA(1,1)
2021-01-01	3.07	4.84	6.49	3.43
2021-02-01	4.25	6.72	6.69	3.45
2021-03-01	7.42	8.55	6.87	3.47
2021-04-01	9.21	6.64	7.04	3.49
2021-05-01	7.71	6.61	7.19	3.51
2021-06-01	10.81	4.75	7.32	3.52
2021-07-01	5.67	8.35	7.44	3.54
2021-08-01	3.29	8.28	7.55	3.55
2021-09-01	4.94	4.66	7.65	3.56
2021-10-01	11.27	4.65	7.73	3.57
2021-11-01	9.31	8.14	7.81	3.57
2021-12-01	5.63	9.80	7.89	3.58
2021 average	**6.88**	**6.83**	**7.31**	**3.52**

These forecasts have been calculated in May 2021. The predictive model is an ARMA(1,1)

$$y_t = \alpha + \rho y_{t-1} + \varepsilon_t + \theta \varepsilon_{t-1}. \quad (1)$$

y_t is the annualized CPI inflation: $(log(CPI_t) - log(CPI_{t-1})) * 1200$. Data span is 1960M01 - 2020M12. Data vintage is May 2021. Conditional on December 2020 value, iterative forecasts are constructed up to 12 months ahead. These are *Unadjusted ARMA(1,1)* forecasts.

Intercept correction forecasts are obtained by adding the out-of-sample forecast errors for the period 1978M02-1979M01 to the ARMA predictions above.

Similarity approach forecasts are obtained by first estimating ARMA model on the subsample 1973M01 - 1982M12, and then using those estimates and December 2020 information to predict up to 12 months ahead.

For more on intercept correction and similarity approaches see Foroni, Marcellino and Stevanovic (2020).

References:

Foroni, C., Marcellino, M. and D. Stevanovic (2020). Forecasting the Covid-19 recession and recovery: Lessons from the financial crisis, *International Journal of Forecasting*. doi:10.1016/j.ijforecast.2020.12.