A Quarterly Projection Model for the WAEMU

**Author:**Carlos de Resende;Alsim Fall;Demba Sy

This study describes a semi-structural New-Keynesian Quarterly Projection Model (QPM) for the WAEMU zone. In the context of a fixed exchange rate regime and relatively tight capital controls, the central bank for the WAEMU monetary union (Banque Centrale des États de l’Afrique de l’Ouest, BCEAO) can exert some influence on the domestic money markets and interest rates. We adjusted the canonical version of a New Keynesian semi-structural Quarterly Projection Model (QPM) to capture that feature and other aspects specific to the BCEAO monetary policy framework, including an implicit foreign exchange reserve target. The model, which is parametrized though and mix of calibration and Bayesian estimation techniques, displays dynamic properties for the main variables in response to various shocks that are in line with theoretical priors and empirical evidence. Medium-term forecasts considering the Covid-19 pandemic produce sensible results when compared with forecast produced by a standard VAR. Moments computed from artificial data generated with the model match well those observed in the data. Overall, the model displays desirable analytical properties and sensible data-matching and forecasting capabilities and could, therefore, be used by the BCEAO to identify relevant shocks, map their propagation into the WAEMU regional economy, and better support its monetary policy decisions.

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