

# **Bayesian Vector Error Correction Forecasting Models**

**Ronald Bewley**  
Minxian Yang

A major problem that frequently occurs in the VAR approach to modelling multiple time series is the large number of parameters that need to be estimated from relatively small samples. Litterman (1980) proposed a Bayesian version which has random walks as priors. Recently, that approach has been adapted to Vector Error Correction (VEC) models. In this paper, a new method of reducing the parameter space is proposed that combines VEC modelling, Box and Tiao's (1977) canonical approach, and Bayesian priors. The procedure is illustrated with an application to a six-equation forecasting model of the US economy.

**Keywords:** Forecasting, Vector Error Correction Models, Bayesian Priors

**Correspondence:**

University of New South Wales  
Australia  
email: r.bewley@unsw.edu.au