

7/2000 *Dynamic Factor Analysis with Arma Factors*

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In this paper we present a new dynamic factor model in which the common factors follow independent ARMA processes. We show how the EM and scoring algorithms typically used for the estimation of scalar-AR-factor models may be modified to accommodate ARMA factors. We also propose a new estimation technique based on first derivatives computed by an adjoint filter. We illustrate the use of our model by estimating a common ARMA factor in long run interest rates.