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“The Cointegrated Vector Auto-Regressive Model: Relation to Economic Theory and Macroeconomic Applications”

Under this heading three papers are presented. The first attempts to contribute to a more rigorous and transparent use of economic theory models in applications of the Cointegrated Vector Auto-Regressive (CVAR) model, while still respecting the statistical principles of empirical modeling. Simple examples illustrate how theory models can be stated as restrictions on a CVAR, and establish a correspondence between economic and econometric concepts.

The second paper sets up the Malthusian model of population and income, and shows how this should be tested as restrictions on a VAR. Based on English pre-industrial data, nonstationarity of income and demographic rates is found, and our framework enables a clear explanation: The stabilizing Malthusian marginal productivity effect, is roughly off-set by population-driven technology (Boserup and Smith).

Confronting the Danish data since 1983, the third paper tests the well-known Layard-Nickell-Jackman framework for analyzing unemployment. The results support many of the fundamental assumptions: Hysteresis of the type building on long-term unemployment seems to be highly relevant, the Wage Setting curve slopes downward (in unemployment-real wage space) and is shifted by the real exchange but not by the replacement ratio, the Price Setting curve is roughly horizontal and shifted downwards when the real interest increases and upwards when oil prices drop (in 1986). Finally, a parsimonious IS curve, apparently being shifted as a result of the German Reunification, and, supposedly the Tax reform of 1994, is also consistent with the data.