

(35) Englund, Peter, Ioannides, Yannis. "House Price Dynamics: An International Empirical Perspective." *Journal of Housing Economics*, 1997, 6: 119-136.

The paper compares the dynamics of housing prices in 15 OECD countries. The authors first analyze whether the autoregression pattern holds internationally, and found that the data suggest rich dynamics for the first differenced real house prices, as first order coefficients are significantly high, and signs of negative autocorrelation at lags up to the fourth order. Estimates of separate AR(1) equations for each country confirm that first order autoregression is a general feature of house price changes, and all estimates are positive. Estimates of separate AR(2) equations confirm the prevalence of positive autocorrelation at the first order and negative at the second order. They conclude that these results imply oscillatory behavior around a trend for house prices.

They then address the question of whether individual country effects are significant with the first differenced data, and conclude that after house prices have been differenced once, house price dynamics display a remarkable degree of homogeneity, which implies that at least as far as house price dynamics are concerned, housing markets in different countries are all the same.

They then examine whether other variables apart from lagged house prices have predictive power in explaining future house price changes, as they included the lagged rate of growth of real GDP, and the lagged rate of change of real interest rate along with one period lagged house price changes, and found that both variables have strong predictive power. Comparing regression estimates from regressions conducted separately for each of the countries, reveal that though there are slight differences, they are fewer than the similarities across countries.

Though previous results confirm that house price changes appear to be predictable at a year's horizon, they do not address the question of what types of shocks are important in explaining house price movements. Running similar pooled regressions with the contemporaneous changes in GDP growth rate and the change in real rate of interest, they find the coefficients of these variables very significant with the first order lag.

Analyzing whether the intertemporal variation in house prices display some degree of synchronization across countries whose financial markets are linked, they concluded that they cannot derive a firm conclusion on the existence of an international housing cycle.