Who Tames the Celtic Tiger? Portfolio Implications from a Multivariate Markov Switching Model*

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Abstract

We use multivariate regime switching vector autoregressive models to characterize the time-varying linkages among the Irish stock market, one of the top world performers of the 1990s, and the US and UK stock markets. We find that two regimes, characterized as bear and bull states, are required to characterize the dynamics of excess equity returns both at the univariate and multivariate level. This implies that the regimes driving the small open economy stock market are largely synchronous with those typical of the major markets. However, despite the existence of a persistent bull state in which the correlations among Irish and UK and US excess returns are low, we find that state comovements involving the three markets are so relevant to reduce the optimal mean-variance weight carried by ISEQ stocks to at most one-quarter of the overall equity portfolio. We compute time-varying Sharpe ratios and recursive mean-variance portfolio weights and document that a regime switching framework produces out-of-sample portfolio performance that outperforms simpler models that ignore regimes. These results appear robust to endogenizing the effects of short term interest rates on excess stock returns.

Keywords: international portfolio diversification; multivariate regime switching; Sharpe ratio.

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