Testing for Granger Causality with Mixed Frequency Data

It is well known that temporal aggregation has adverse effects on Granger causality tests. Time series are often sampled at different frequencies. This is typically ignored, as data are aggregated to the common lowest frequency. We develop a set of Granger causality tests that explicitly take advantage of data sampled at different frequencies. We show that taking advantage of mixed frequency data allows us to better recover causal relationships when compared to the conventional common low frequency approach. More specifically, we show that the mixed frequency causality tests have higher local asymptotic power as well as more power in finite samples compared to conventional tests.