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**James M. Haley\***, 259 Maple Avenue, Pittsburgh, PA 15218. *Forecasting Chaotic Business Cycles.*

In order to create business cycle chaos, a dynamical system must exist that has at least three dimensions in continuous time, which include real stock returns, inflation, and real economic output. This system of differential equations requires at least one nonlinear term to capture the model's sensitive dependence on initial conditions. By applying a Sprott dynamical system, it becomes possible to make short-term forecasts of the economy. It should not be surprising that economists, who use orthodox methods that ignore chaos, failed to predict the Great Recession, which was the worst recession since the Great Depression. When the short-term interest rate is targeted to be 3%, , the economy mean-reverts, like a Langevin equation perturbed by noise. Then business cycles no longer exist, because forecasts become normal with decreasing variance. (Received September 26, 2017)