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James M Haley*, 815 Copeland Way, #4D, Pittsburgh, PA 15232. *Possible Evolutions of Financial Markets in a Keynesian Economy.*

This paper identifies the necessary monetary policy conditions to prove the existence of a strange attractor or a rational expectations equilibrium in a Keynesian macro model of the economy. Specifically, a Rossler nonlinear model perturbed by noise exists for financial markets, if the Federal Reserve, the US central bank, implements a Taylor-like monetary policy. In this regime the Fed targets the federal funds rate, which controls interest rates, to vary directly with inflation expectations and real output. Often the Fed overreacts by setting interest rates too high or too low, causing chaotic business cycles to emerge. Instead, if the Fed follows a Wicksell rule by targeting zero inflation expectations and pegging the federal funds rate to equal its real expectation, the stock market will behave like a Langevin equation. In this case the density of real stock returns is asymptotically normal. Consequently, business cycles no longer exist, since the stock market and the economy mean-revert. Then everyone can make more reliable forecasts. (Received September 16, 2008)