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James M Haley* (dparasolick@pointpark.edu), School of Business, 201 Wood St., Pittsburgh, PA 15332. *How Monetary Policy Can Eliminate Economic Chaos*. Preliminary report.

Federal Reserve Chairwoman Yellen has recently warned, “It would be a grave mistake for the Fed to commit to conduct monetary policy according to a mathematical rule... it is utterly necessary for us to provide more monetary policy accommodation than those simple rules would have suggested.” Interestingly, Yellen is guided by simple policy rule as well by keeping interest rates low (high), when the economy is operating below (above) its trend. Instead of stabilizing the economy, the unintended consequence of the Yellen Rule is greater forecasting uncertainty, due to nonlinear feedback. This chaotic evolution of forecast errors can be modeled by applying a Sprott nonlinear dynamical system of financial chaos perturbed by random noise and shocked by excess demand for real money. It can be proven that a simpler monetary policy rule exists, which prudently improves everyone’s forecasts by targeting the long and short-term interest rates to equal the same fixed expectation. In this way, the economy can be stabilized. (Received September 16, 2014)