Example 2.7. Analyze the $\mathcal{H}_\infty$ stability of (8) through the utilization of MATLAB:

$$A = \begin{bmatrix} -1 & -2 \\ 1 & -4 \end{bmatrix}, \ N = \begin{bmatrix} 1 \\ 0.1 \end{bmatrix}, \ G = \begin{bmatrix} 1 & 0 \end{bmatrix}, \ \gamma = 0.64.$$

What happens when γ becomes less than 0.64?