1098-37-31 **Suddhasattwa Das*** (sdas11@umd.edu), 6100 44TH Place, Riverdale, MD 20737, and **James A Yorke**. *Avoiding extremes in chaotic systems.*

In chaotic dynamical systems subjected to disturbances which are stronger than the the available control, it is not possible to follow a particular trajectory but the system can be partially controlled to avoid extreme values by staying confined within some compact set. Economic models can be prone to crashes due to the presence of chaotic dynamics. This paper explains for a toy economic model how a general 1-dimensional system can be regulated by the application of relatively weak control, even in the presence of strong external disturbances, thereby avoiding severe downturns in the economy. This partial controllability is defined through the concepts of safe sets. We describe how the safe set varies with parameters, sometimes continuously or discontinuously. (Received January 23, 2014)