

## **DIMINUTION OF MALEVOLENT GEOMETRIC GROWTH THROUGH INCREASED VARIANCE**

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### **ABSTRACT**

*Often, geometric growth maximization techniques as presented by Kelly, Thorp and Vince et al., have looked only at such ambits where the implementor was concerned with maximizing growth, or more generally, situations where growth was beneficial to the implementor.*

*In this paper we examine using these techniques on geometric growth functions where the implementor benefits from diminished growth. Certain geometric growth functions accruing against the public, often characterized as “growing out of control”, typically meet this criterion. These often include medical costs, the growth of populations (e.g., bacteria) or pathogenic infections in a population, infected cells in an organism, or even the growth of cumulative national debt.*

*Finally, we demonstrate the technique upon this notion of the growth rate of a nation’s cumulative debt. Heretofore, debt reduction has been considered along the one-dimensional tug-of-war between reducing government services or increasing taxes. The technique presented, albeit very simple, provides a politically agnostic means of debt-reduction.*

**Keywords:** Debt-reduction, Geometric growth functions, Growth rate.

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