

Exponential Growth Bias and Household Finance^{*}

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Abstract

We document two widespread biases in how consumers perceive the costs and benefits of borrowing and saving, and explore the implications of these biases for household finance. *Payment/interest bias* is the systematic tendency to underestimate a loan interest rate given other loan terms. *Future value bias* is the systematic tendency to underestimate a future value given a present value, time horizon and periodic rate of return. We show that these biases may have a single cognitive source: *exponential growth bias*, the pervasive tendency to linearize exponential functions. Most importantly we show that these biases seem to affect household decisions and outcomes. Conditional on a rich set of household characteristics, a household-level metric of payment-interest bias is strongly correlated with borrowing, savings, portfolio choice, wealth and delegation. There is only weak evidence that our measure of bias merely proxies for broader financial sophistication. In all the results suggest that exponential growth bias represents a new class of behavioral biases that should be modeled in theoretical and empirical work on household finance.

JEL codes: D1, D9, G11

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