

# The Impact of Income Volatility on Subjective Wealth and Financial Behaviors

Ekaterina Goncharova & Wendy De La Rosa

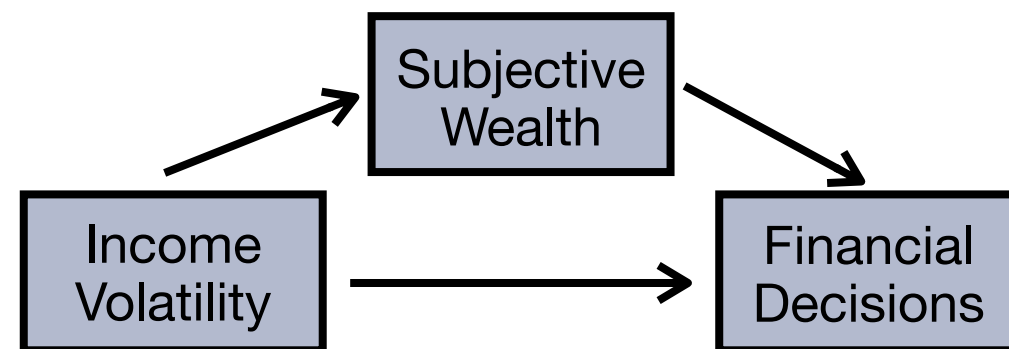
The Wharton School, University of Pennsylvania

## Motivation

Millions of consumers experience income volatility, yet its effects on consumers' judgments and decisions are not well understood.

Across 18 studies, including an analysis of two large-scale datasets of US consumers ( $N = 11,667$ ;  $N = 6,873$ ), nine experiments ( $N = 5,298$ ), and seven supplemental studies ( $N = 3,601$ ), this research investigates how income volatility influences consumers' subjective wealth and their financial decisions.

## Theoretical Model



### Why might income volatility decrease subjective wealth?

1. Lay beliefs (income volatility = with less wealth).
2. Numerical complexity associated with income volatility drives down magnitude estimates (Bechler, Tormala, and Rucker 2019; Thomas and Morwitz 2009).
3. Below average earnings are more salient than equivalent above-average earnings (Kahneman and Tversky 1979).

## Survey of Household Economics and Decisionmaking

Analyzing 11,667 consumers' responses, we identify a negative relationship between consumers' income volatility and their subjective wealth, even after accounting for consumers' objective wealth (their income) and a wide array of covariates.

## Banking Transaction Data

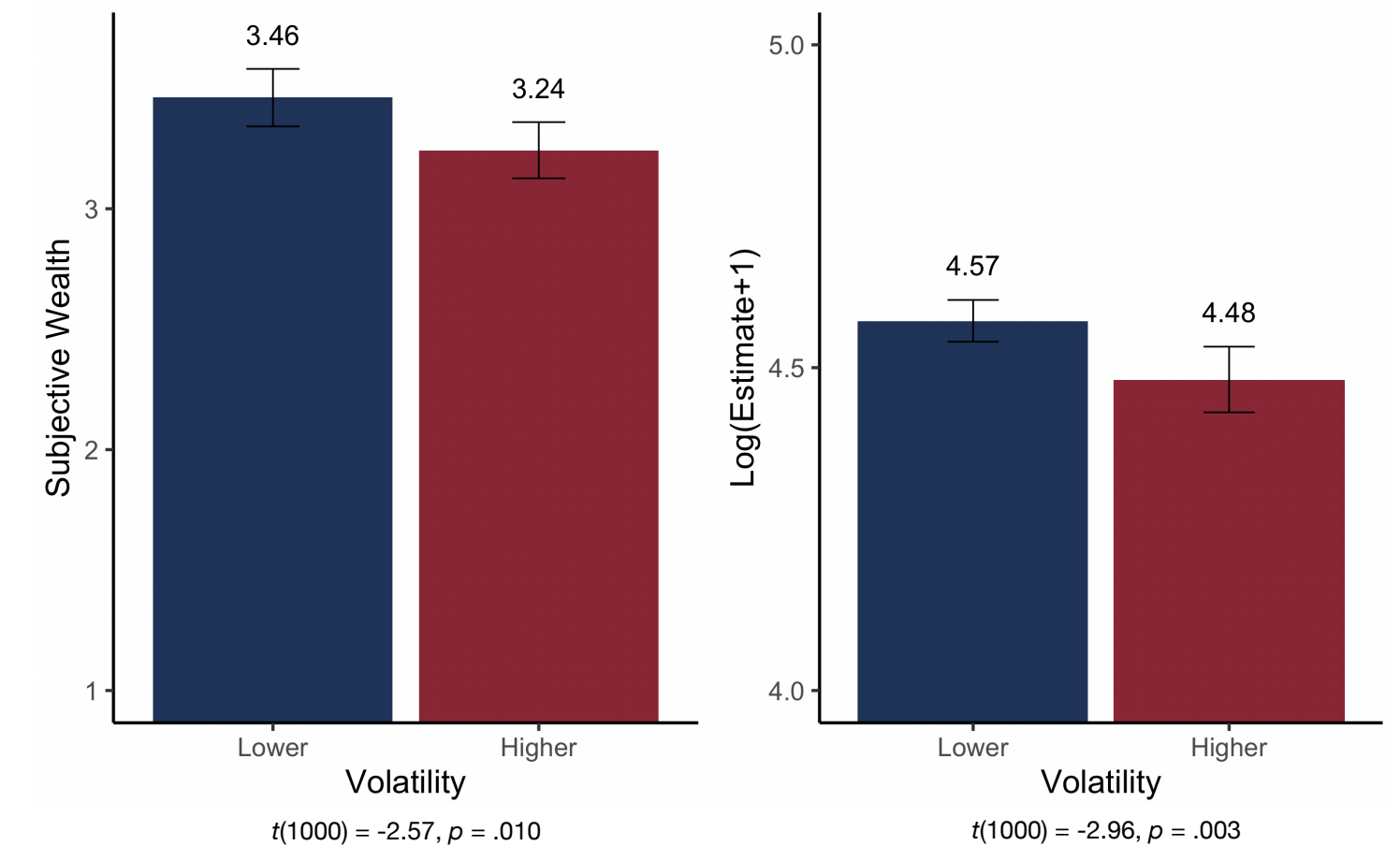
Analyzing data from 6,873 consumers with over 3 million transactions, we find a significant negative relationship between income volatility and spending, even after controlling for consumers' monthly income (log-transformed) and payment frequency.

$b = -0.032$ ,  $SE = 0.004$ ,  $t = -8$ ,  $p < 0.001$

## Manipulating Income Volatility

Stream #1	Stream #2...	Stream #10	Stream #1	Stream #2...	Stream #10
Day 1 Daily earnings: \$127.	Day 1 Daily earnings: \$62.	Day 1 Daily earnings: \$115.	Day 1 Daily earnings: \$166.	Day 1 Daily earnings: \$3.	Day 1 Daily earnings: \$44.
Day 2 Daily earnings: \$72.	Day 2 Daily earnings: \$88.	Day 2 Daily earnings: \$100.	Day 2 Daily earnings: \$8.	Day 2 Daily earnings: \$33.	Day 2 Daily earnings: \$350.
Day 3 Daily earnings: \$88.	Day 3 Daily earnings: \$104.	Day 3 Daily earnings: \$93.	Day 3 Daily earnings: \$26.	Day 3 Daily earnings: \$100.	Day 3 Daily earnings: \$5.
⋮	⋮	⋮	⋮	⋮	⋮
Day 14 Daily earnings: \$150.	Day 14 Daily earnings: \$71.	Day 14 Daily earnings: \$135.	Day 14 Daily earnings: \$284.	Day 14 Daily earnings: \$294.	Day 14 Daily earnings: \$23.
= \$1,400			= \$1,400		
Lower Income Volatility ( $\sigma^2 = 1,000 \pm 1$ )			Higher Income Volatility ( $\sigma^2 = 9,000 \pm 1$ )		

Studies 2-5 demonstrate that higher (vs. lower) income volatility decreases consumers' subjective wealth, even when consumers' objective wealth, payment frequency, and control over their earnings are held constant.



## Implications for Marketing Managers

Study 8 examines how consumers respond to charity appeals that emphasize an organization's donation volatility. We find that consumers donate more to charities with higher (vs. lower) donation volatility, as consumers perceive the charity to be in greater financial need.