

Inflation Expectations (Study 3) (#297841)

Author(s)

This pre-registration is currently anonymous to enable blind peer-review.
It has 2 authors.

Pre-registered on:

2026/06/21 06:52 (PT)

1) Have any data been collected for this study already?

No, no data have been collected for this study yet.

2) What's the main question being asked or hypothesis being tested in this study?

Participants will forecast U.S. Consumer Price Index (CPI) inflation 12 months ahead (the percentage change of CPI during the next 12 months) and report their reasoning and information sources. They will then have a conversation with an AI Chatbot. Our experiment provides different conversational instructions to the chatbot. We test the persuasiveness of a combination of previously identified features vs. a baseline prompt vs. a control discussion unrelated to inflation.

3) Describe the key dependent variable(s) specifying how they will be measured.

Participants provide a point forecast of the U.S. 12-month inflation rate on a slider from -5% to +20%, both before and after exposure to a conversation with GenAI. We define a Weight of Advice (WoA) measure as $(\text{Revised} - \text{Initial}) / (\text{GenAI} - \text{Initial})$, where the GenAI estimate is fixed to be three percentage points from the participant's initial estimate in the direction of 2.9 (the consensus forecast at the time of the preregistration).

4) How many and which conditions will participants be assigned to?

Participants are randomly assigned to a GenAI Chatbot with one of three instructions: a "baseline" prompt and an "optimized" prompt based on factors resulting from a separate study (AsPredicted 271657); and a "control" prompt instructing the bot to talk about information sources and not inflation forecasts.

5) Specify exactly which analyses you will conduct to examine the main question/hypothesis.

Our key analysis estimates the OLS regression: $\text{WOA} \sim b_0 + b_1 \times \text{Baseline_Prompt} + b_2 \times \text{Optimized_Prompt}$. We test whether $b_2 > 0$ (optimized prompt is persuasive) and whether $b_2 > b_1$ (optimized prompt is more persuasive than baseline prompt). Additionally, we will run a separate model that includes a control for the absolute distance between a participant's initial estimate and the 2.9 current consensus forecast.

6) Describe exactly how outliers will be defined and handled, and your precise rule(s) for excluding observations.

We include all participants who were successfully paired with a GenAI chatbot and complete the survey.

7) How many observations will be collected or what will determine sample size? No need to justify decision, but be precise about exactly how the number will be determined.

We will target a sample size of 1,200 participants who successfully pair with a chatbot and complete the survey.

8) Anything else you would like to pre-register? (e.g., secondary analyses, variables collected for exploratory purposes, unusual analyses planned?)

We also collect a measure of uncertainty by asking participants to provide a distribution of their inflation estimate using draggable bars that are normalized to a probability distribution, before and after their conversation with the chatbot. Specifically, we assume for each bar the midpoint of its interval (except for the tails, which are unbounded and where we calculate the midpoint as-if it had the same range as the other bars), then calculate the standard deviation over this distribution. We then conduct the OLS regression: $\text{SD_Post} = b_0 + b_1 \times \text{Baseline_Prompt} + b_2 \times \text{Optimized_Prompt} + b_3 \times \text{SD_Pre}$. We examine whether conversation with the AI chatbot reduces uncertainty.