Interpreting Recent Trends in Long-Run Inflation Expectations July 12, 2024

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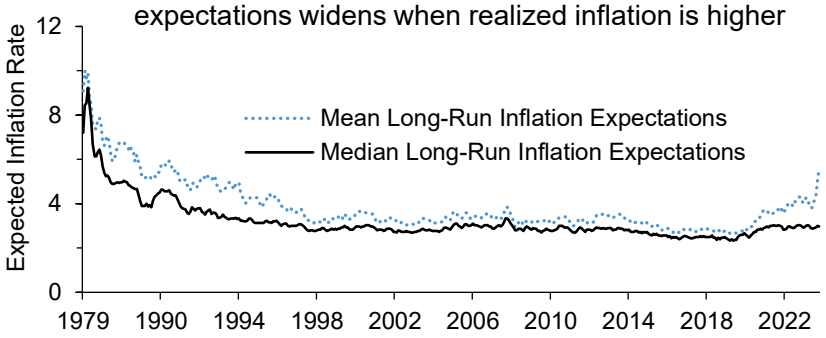
Recently, there has been increased attention on the possibility that the wedge between median and mean long-run inflation expectations may indicate that expectations have become unanchored. A close inspection of the data from both a long-run historical perspective as well as a focus on this year's month-to-month movements reveal that recent trends are not unusual and are unlikely to reflect a fundamental deterioration in consumers' inflation expectations. Taken together, our interpretation of the data is that, at this time, long-run inflation expectations continue to exhibit substantial stability, though they remain elevated relative to the long period of low inflation prior to the pandemic.

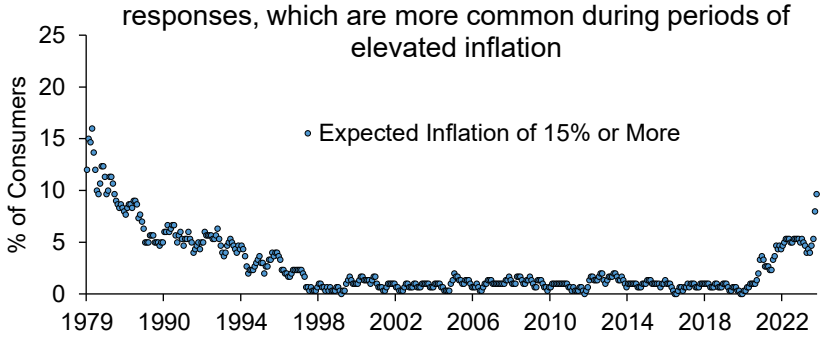
Figure 1: The wedge between mean and median expectations widens when realized inflation is higher



The current wedge between mean and median long-run expectations is not unusually large from a historical perspective. **Over the last 45 years, mean expectations have well exceeded medians during periods of higher realized inflation.** As seen in Figure 1, during higher-inflation periods in the 1970s, 80s and 90s, the mean (blue dotted line) substantially exceeded the median (black solid line), even when the economy was experiencing disinflation. Meanwhile, in the sustained period of low realized inflation in between the Great Recession and the pandemic, the gap between mean and median was quite small. As realized inflation rose in 2021-2022, the wedge between mean and median long-run inflation expectations grew as well, continuing the historical pattern.

Figure 2 plots the share of consumers reporting extremely high long-run inflation expectations (15% or higher). At least some consumers report these extreme values in periods of high and low realized inflation alike. However, **when realized inflation rates are elevated, consumers become more much likely to report extremely high inflation expectations.** In other words, the right tail of the distribution of responses lengthens when realized inflation is higher, generating more skewness in the data and pulling up the mean.[1] Conversely, when realized inflation is low, the right tail collapses.

Figure 2: Means are highly sensitive to extreme responses, which are more common during periods of elevated inflation

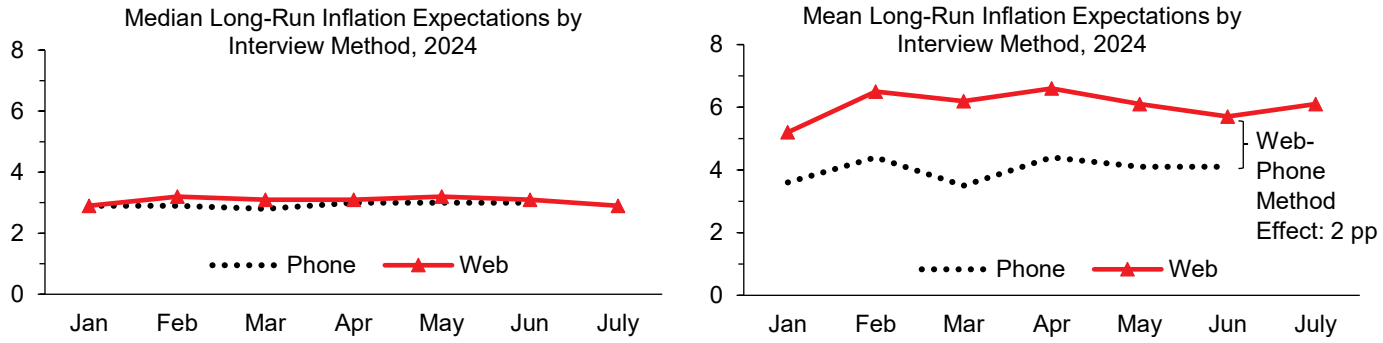


From a historical perspective, it is normal and expected for the dispersion of responses to widen as it did in 2021 and 2022. While realized inflation has slowed since 2022, it remains higher than it was pre-pandemic, and thus the current elevated share of extreme values is consistent with historical patterns. Given the mean's sensitivity to extreme values, the gap between mean and median inflation expectations is unsurprising.

Moreover, in recent months, the elevated level of mean long-run expectations has been amplified by the methodological transition from phone to web interviewing that began in April 2024, because respondents on web interviews are consistently more willing to report extremely high expectations than on phone interviews.

[1] The published means are computed after capping extreme responses at 50% and -10%. Interested data users can use microdata from the cross-sectional archive to implement other approaches, like censoring at different values, truncating/removing extreme observations, or winsorizing.

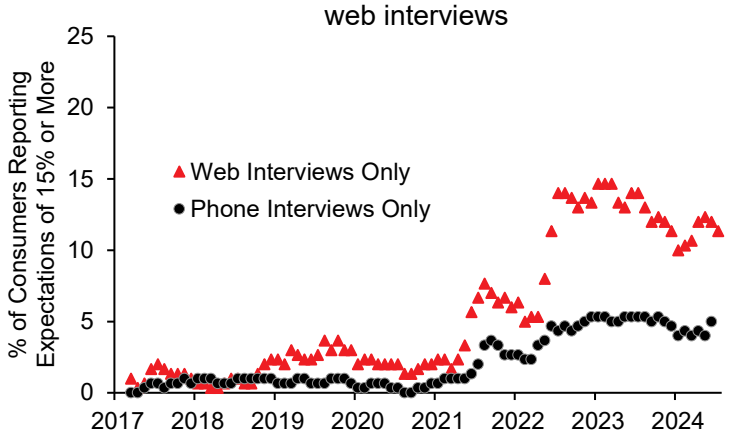
Figure 3: The recent increase in mean long-run expectations is amplified by the transition from phone interviews to web interviews and is unlikely to reflect an underlying shift in consumer attitudes



As seen in the left panel of Figure 3, there are few differences in medians between interviews conducted via phone (black dotted line) and web (red solid line). However, the right panel illustrates the fact that mean expectations are consistently higher for web than for phone. The means from both data collection methods move in parallel, and the average method effect for the mean is about two percentage points. Given that web interviews were phased in over a four-month period starting in April, this means that when looking at the change from a mean of 3.5% in March (when all interviews were conducted via phone) to the mean of 6.1% in July (when all interviews were conducted via web), about 2 percentage points of this rise is attributable to the methodological transition.[2] **As such, the recent increase in published mean inflation expectations is unlikely to reflect a substantive shift in consumer attitudes.**

Again, the difference between means computed using phone and web interviews is driven by a greater willingness to report extremely high inflation expectations on our web interviews, as seen in Figure 4. (In contrast, the distribution of responses that are less than 15% inflation is similar for web and phone interviews.) The greater willingness to report extremely high values on web interviews occurs despite the fact that, like the phone interviews, web interviews also include an automatic follow-up probes for all responses of 5% or higher.[3]

Figure 4: Consumers are particularly willing to express extremely high inflation expectations on web interviews



Inspecting recent trends within web interviews alone and within phone interviews alone provides further evidence that underlying consumer views about inflation have not worsened in the last few months. The shares of consumers reporting extremely high expectations have been moderating from its 2023 peak, consistent again with the recent easing in median expectations. Taken together with the stability of median expectations, **we continue to interpret the data as reflecting stable long-run expectations that remain elevated relative to the period prior to the pandemic.**

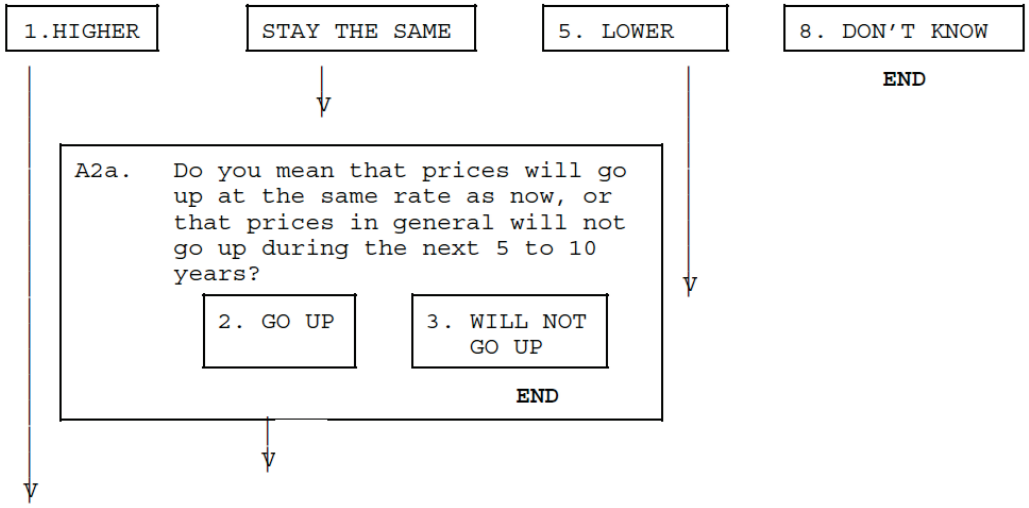
The Surveys of Consumers cross-sectional archive has been updated with microdata through June 2024 and includes a variable that indicates whether an interview was completed via phone or web; this will facilitate additional analysis by interested data users.

[2] Section 4 of the Technical Documentation for the 2024 Methodological Transition provides more details about interpreting changes in survey estimates during the methodological transition.

[3] It is possible that respondents react differently to aural probes in telephone interviews than visual probes in web interviews; this is an area of continued research.

Appendix: Text of Questions

A2. What about the outlook for prices over the next 5 to 10 years? Do you think prices will be higher, about the same, or lower, 5 to 10 years from now?



A2b. By about what percent per year do you expect prices to go (up/down) on the average, during the next 5 to 10 years? (USE PROBE BELOW IF ANSWER IS GREATER THAN 5%)

_____PERCENT

END

DON'T KNOW

A2c. (AFTER A DON'T KNOW RESPONSE IS PROBED, IF R SAYS, "I DON'T KNOW", USE THE FOLLOWING PROBE:) (USE PROBE BELOW IF ANSWER IS GREATER THAN 5%)

How many cents on the dollar per year do you expect prices to go (up/down) on the average, during the next 5 to 10 years?

_____CENTS ON DOLLAR

98. DON'T KNOW

IF R GIVES AN ANSWER THAT IS GREATER THAN 5%, PLEASE PROBE WITH:
"Would that be (X) percent per year, or is that the total for prices over the next 5 to 10 years?"

IF R HAS GIVEN A TOTAL FOR THE NEXT FIVE TO TEN YEARS, ASK:
"About what percent per year would that be?"