

MACROECONOMIC CONDITIONS AND UPDATING OF EXPECTATIONS BY OLDER AMERICANS

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Economic theory suggests that individuals' decisions about consumption, saving, and labor supply should be directly linked to subjective expectations about future events. Expectations of older cohorts of individuals are particularly important to examine, given the importance these expectations are likely to play in retirement planning and timing decisions that are costly to reverse.

In this paper, we investigate expectation formation, using data from the 1994–2008 Health and Retirement Study (HRS) linked to data on local and national macroeconomic conditions. We examine a number of different expectation questions that can be categorized into two groups. A set of macroeconomic and public policy questions includes expectations that the U.S. economy will have a major depression within the next ten years; that mutual fund shares invested in blue chip stocks will rise in value over the next year; that Social Security will become less generous; and that there will be double-digit inflation within the next ten years. A second set of questions related to individual-level situations includes respondent-reported probabilities of working full time after age 62 and 65 (asked of those respondents younger than age 61 and 64, respectively); of leaving an inheritance of \$10,000; and of medical expenses using up all of the respondent's savings in the next five years. All expectation questions have been asked for multiple waves, allowing us to utilize multiple responses across years for a given respondent.

We merge in state-level data on monthly unemployment rates, quarterly house price indices (HPI), and quarterly data on job creation and loss. We also merge monthly stock price data from the S&P 500 and monthly retail sales data at the national level. We exploit the fact that through restricted access, HRS makes available the month an individual respondent's interview began. This allows us to more precisely match economic conditions at the time of the interview, and provides greater variation with which to estimate responses.

We use these data to estimate the relationship between each of these expectation variables and national and local economic conditions, while controlling for demographic characteristics and state of residence. We include year fixed effects to capture national changes in macroeconomic conditions over time. We include the monthly and quarterly macroeconomic measures mentioned above to test whether subjective expectations vary with local and higher frequency macroeconomic indicators. Finally, we interact these variables with an indicator for college-educated to test whether the updating of expectations by households in response to these conditions varies by education level.

Findings

We find strong correlations between a number of demographic characteristics and individuals' expectations about both macroeconomic and policy events, as well as about future individual labor supply and financial wealth. Individuals in poor and declining physical and mental health have significantly less optimistic expectations about the macroeconomic future. Individuals from more vulnerable socioeconomic groups have lower expected probabilities of leaving bequests and higher

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expected probabilities of having medical expenses use up their savings. However, they are also significantly less likely to expect to be working past age 62 or 65, which could have important implications for their economic well-being.

We also find evidence that suggests that HRS respondents update their expectations in response to local and high frequency macroeconomic conditions in ways that seem to make sense. Our results suggest that individuals revised their expected probability of a major depression upward substantially during 2008, the onset of the current economic downturn. Higher state unemployment rates and a decrease in average monthly stock prices are also associated with a significant increase in the expected probability of a depression. We find that higher local unemployment rates are significantly associated with a higher expectation of less generous Social Security, as are increases in retail sales prices. Our results also suggest that an increase in stock prices is significantly associated with a decreased expectation of a future stock price increase, which could be consistent with beliefs in some degree of mean reversion in stock prices. Increases in job gains are significantly associated with inflation expectations, with higher job gains leading to higher expectations of double-digit inflation.

We also find evidence of heterogeneity by education in the response to local macroeconomic conditions. For example, for college graduates, the effect of an increase in the unemployment rate on the expected probability of a depression is twice the magnitude for college graduates than for respondents with lower levels of education. College graduates revise their expectations of a depression upward in response to an increase in job losses, a decrease in retail prices, and an increase in housing prices. However, the expectations of college graduates about a less generous Social Security system are less likely to respond to economic conditions.

We also find that local and recent macroeconomic conditions are correlated with subjective probabilities of one's own future behavior. Increases in the house price index are significantly associated with the decreased expected probability of working past the age of 62, though other macroeconomic variables do not seem to matter. However, the expected probability of working past the age of 65 is more responsive to economic conditions. Increases in the unemployment rate and decreases in job gains are both positively and significantly associated with the expected probability of working past the traditional retirement age. Again, we find evidence of heterogeneity in responses by education. The unemployment rate effect on working longer is larger for less-educated individuals, while the house price effect is larger for more-educated individuals. This is consistent with the fact that college graduates are less likely to be affected by business cycle fluctuations, and more likely to be homeowners.

Conclusion

In this paper, we investigate the formation of expectations. We find evidence that suggests that HRS respondents update their expectations in response to local and high frequency macroeconomic conditions in ways that seem to make sense, and that this is stronger for respondents with higher levels of education. Our results provide an important contribution to our understanding of how individual expectations are shaped by fluctuations in the macroeconomy.

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