How does the stock market affect subjective expectations of the future? Evidence from linking financial data to survey responses

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Abstract

International financial markets exhibited dramatic dynamics over recent years. The bursting of the dot-com and the real estate bubbles led to massive price drops. Stock owners were affected by these developments due to the loss of assets. But also non-stock owners may follow financial news as an important indicator of economic development.

This study scrutinizes how the stock market affects individuals’ subjective expectations of their future. The analysis focuses on subjective probabilities of job prospects (job loss, job demotion, job promotion, pay raise), expected life satisfaction, and concerns about job security. Linking the German stock index DAX to survey data from the German Socio-Economic Panel Study, this study investigates the role played by returns and variability, as measured by the coefficient of variation, for subjective expectations by applying semiparametric regression models. The identification strategy builds on the temporal variation in the survey. Assuming that the day of the interview is independent of the stock market, the variation in interview dates may induce exogenous variation in stock market indices. Hence, we may interpret the relationship as causal.

The empirical evidence shows that expectations respond to short-term developments on the stock market, as returns and variability over a 90-day horizon have the highest explanatory power. Perceptions of job security and expected life satisfaction respond in a similar way among stock owners and non-stock owners. The results clearly show stronger effects of losses than of gains (loss aversion). Furthermore, both a low and a high variability lead to pessimistic expectations. Figure 1 illustrates.

Figure 1: Smooth functions of expected life satisfaction of stock owners

![Figure 1: Smooth functions of expected life satisfaction of stock owners](image)

Note: The shaded areas indicate 95% confidence bands. Source: SOEP v28, German stock index DAX.

Keywords: job prospects, expected life satisfaction, subjective probabilities, stock market, semiparametric regression

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