A.1 RESPONSE RATES

We next provide more details on the response rates to the GMS-Vanguard Survey. The top panel of Figure A.1 reports the number of responses in each wave, with different shades of gray tracking the first wave in which an individual responded. Starting in wave 5, we receive more responses from individuals who are re-respondents than from individuals who are responding for the first time. The bottom panel shows that about 35% of responses come from individuals who have responded to one survey only (though some of these may end up responding to future surveys). Over 25% of responses come from individuals who have responded to at least four survey waves, and 10% come from individuals who have responded to at least six survey waves.

Figure A.1: Number of Responses by Wave

Note: Figure shows number of responses to the GMS-Vanguard Survey. The top panel shows the number of responses per wave. The bottom panel shows the total number of responses separately by how many survey waves a person has responded to. In both panels, the colors correspond to the waves in which these individuals first answered.
In this Appendix, provide more details on the data construction for our trading analysis. For investors with retail accounts (which are 80% of the Vanguard investors we contacted), we have obtained transaction-level data since we began administering our survey (beginning of 2017).

For each trade by a Vanguard investor in our sample, we observe the anonymized id of the investor (that can be linked to the survey), the day of the trade, the amount traded, and the CUSIP and ticker of the security traded. We also observe the asset class composition of each security (individual security or fund): percentage invested in equity, fixed-income, cash, other, and unknown (we group other and unknown together). The classification is provided to us directly by Vanguard. For individual securities, the classification is relatively obvious: equity securities are classified as 100% equity, bonds as 100% fixed income, etc...For mutual funds and ETFs, Vanguard relies on both internal data (for Vanguard operated funds) and external data (from Morningstar) to divide the investment of the funds in the various asset classes. Finally, the data contains a code that describes the type of transaction: whether it’s a purchase of an asset with cash, a sale, an exchange of two different stocks, a purchase with cash from outside Vanguard, and so on.

We use this information to compute, for each trade, how the portfolio allocation into equity, fixed income, cash and other investments (as well as outside money) changes as a result of the trade. We do so by combining the information about the type of trade (buy, sell, etc) with the dollar amount of the trade and with the allocation of the asset traded into asset classes (equity, fixed income, etc).

We divide our sample period in two-week “intervals” (for each month, from the 1st to the 15th of the month, and from the 15th to the end of the month). We do this in two-week increments because our survey is administered around the 15th of the month. Each trade is then assigned to the corresponding interval, and all trades are aggregated by interval. This procedure yields, for each interval, the total increase/decrease in equity, fixed income, cash, and other and unknown in the portfolio during the interval, as well as the total inflow/outflow of money from Vanguard and the total volume of trade during the interval.

We then merge this transaction data with the portfolio data, which are snapshots of the portfolios held at the end of each month. We can then compute the change during the interval in the fraction of portfolio allocated to equity, fixed income, cash and other due to trading. For intervals starting on the 15th of the month (for which therefore we do not observe the snapshot of the market value of the portfolio at that point in time), we use instead the imputed value of the portfolio combining the beginning-of-month portfolio value and the change in value due to trading during the first two weeks.

The analysis in the main body of the paper focuses on “windows” between any two consecutive surveys answered by each individual. An individual, for example, might have answered wave 1 and 3 of the survey, so that a four-month window has passed between the two answers. For the analysis in the paper, we aggregate all the 15-day intervals in each window to focus on trading that occurred during the window.
A.3 **BELIEFS AND PORTFOLIOS: A LOG-LOG SPECIFICATION**

We report here a modification to the specification in Equation 1 in which we regress the logarithm of portfolio shares on the logarithm of expected excess returns and the logarithm of the subjective variance. We have to exclude observations in which either the portfolio share or the expected excess returns are too close to zero or negative.\(^1\)

**Table A.1: Beliefs and Portfolios: The Log-Log Specification**

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>log(Expected 1Y Excess Stock Return (%))</td>
<td>0.092***</td>
<td>0.088***</td>
<td>0.009</td>
</tr>
<tr>
<td></td>
<td>(0.010)</td>
<td>(0.009)</td>
<td>(0.008)</td>
</tr>
<tr>
<td>log(Standard Deviation 1Y Stock Return (%))</td>
<td>0.046*</td>
<td>-0.003</td>
<td>-0.004</td>
</tr>
<tr>
<td></td>
<td>(0.021)</td>
<td>(0.020)</td>
<td>(0.016)</td>
</tr>
<tr>
<td>Controls</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Individual Fixed Effects</td>
<td>N</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>R-Squared</td>
<td>0.011</td>
<td>0.075</td>
<td>0.970</td>
</tr>
<tr>
<td>N</td>
<td>14,489</td>
<td>14,483</td>
<td>14,483</td>
</tr>
</tbody>
</table>

**Note:** Table shows results from the Log-Log specification discussed in Section A.3. The unit of observation is a survey response, the dependent variable is the logarithm of the equity share. Column 2 also control for the respondents’ age, gender, region of residence, wealth, and the survey wave. Column 3 includes individual fixed effects. Standard errors are clustered at the respondent level. Significance levels: * (p < 0.10), ** (p < 0.05), *** (p < 0.01).

Table A.1 reports the results. The first two columns differ only in the inclusion of controls. Similarly to our main specification, we find a robust and statistically significant relationship between portfolio shares and expected (excess) returns, but a weak relationship with the subjective standard deviation. According to the Merton (1969) model, the coefficient predictions are: 1 on expected excess returns and \(-2\) on subjective standard deviation. For expected returns, instead, we find a coefficient of 0.09, approximately 10 times too small. This specification, therefore, further confirms the result of a statistically robust but small sensitivity of portfolio shares to expected returns. Under the Merton (1969) model, the coefficient of relative risk aversion enters this specification in a linearly additive manner, and therefore individual heterogeneity in risk aversion can be controlled for by individual fixed effects. Column 3 of Table A.1 reports the corresponding results; the equity sensitivity is still positive but much smaller at 0.009. The estimate is also no longer statistically significant. The lack of significance can be understood in the context of our trading analysis in Section II.D. A regression with individual fixed effects is identifying off the time-series variation within each individual of beliefs and portfolio shares. Since trading occurs very infrequently, this variation mostly reflects market changes to which the agent does not respond, thus providing a noisy relationship between beliefs and portfolio changes.

\(^1\)We impose that portfolio equity share is between 1% and 100%, and expected excess return are between 1% and 13%. The upper bound of 13% is chosen to be comparable with the restriction of 15% expected returns used in the main body of the paper given 1-year treasuries rates around 2% during this period.
A.4 BELIEFS AND DEMOGRAPHICS: FULL RESULTS

In the main body of the paper, we explored the relationships between beliefs and portfolios, conditional on demographic characteristics of the individual survey respondents. In Table III, we focused on presenting our main coefficients of interest. Column 1 of Table A.2 additionally shows the coefficients on the control variables corresponding to Column 1 of Table III. Equity shares are decreasing significantly across age groups. Relative to individuals below the age of 40, those aged above 60 have an equity share that more than 20 percentage points lower. This relationship between age and equity shares is consistent with standard advice on asset allocation when saving for retirement, where the implied risk aversion is increasing as individuals approach retirement age. It is also consistent with the asset allocation in target retirement funds. Equity shares are not systematically different across gender, region of location, and wealth quintiles.

<table>
<thead>
<tr>
<th>Table A.2: Beliefs by Demographics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td><img src="image" alt="Table Content" /></td>
</tr>
</tbody>
</table>

**Note:** Column 1 shows coefficients from a regression of portfolio equity shares on beliefs and demographic controls. Columns 2-10 show coefficients of regressions of answers to the various survey questions on demographic controls. Standard errors are clustered at the respondent level. Significance levels: * (p<0.10), ** (p<0.05), *** (p<0.01).

Columns 2-10 of Table A.2 show the coefficients on the control variables from a regression of survey responses on these demographic controls. As highlighted in Section III, the overall predictive power of these controls for beliefs is relatively low, and all regressions have a relatively low R². A few interesting and systematic patterns emerge nevertheless. First, in our sample, older individ-
uals are marginally more optimistic about expected stock returns and about 3-year GDP growth; their subjective distribution over future stock returns also has a lower standard deviation. Confidence in own beliefs about stock market returns by age has an inverse-U shape. Second, there is no large difference between men and women in terms of their stock market expectations, but men expect both GDP growth and bond returns to be lower. Men also find the questions less difficult, and are more confidence in their answers. Wealthier individuals are more pessimistic across most of their beliefs; this effect is smallest for the 1-year stock market expectations. In addition, wealthier individuals find the questions easier, on average, though they are no more confident in their answers than less wealthy individuals. Across Census regions, there is some evidence that residents from the Western Region are somewhat more pessimistic, both in terms of expected stock returns and expected GDP growth.

A.5 Variance Decomposition of Beliefs (RAND)

In this Appendix, we repeat the variance decomposition of beliefs from Section III using the RAND survey. As discussed in the main body of the paper, the RAND survey covers a smaller cross-section (4,734 individuals) but a longer time series than the GMS-Vanguard survey, with 1,032 individuals responding at least 50 times.

**Table A.3: Decomposing Variation in Beliefs: Individual and Time Fixed Effects (RAND)**

<table>
<thead>
<tr>
<th></th>
<th>Reg (4)</th>
<th>Reg (5)</th>
<th>Reg (6)</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prob. Ret &gt; 0% (1yr)</td>
<td>0.5</td>
<td>56.8</td>
<td>57.4</td>
<td>3,475</td>
</tr>
<tr>
<td>Prob. Ret &gt; 20% (1yr)</td>
<td>1.4</td>
<td>47.1</td>
<td>48.2</td>
<td>3,358</td>
</tr>
<tr>
<td>Prob. Ret &lt; -20% (1yr)</td>
<td>0.5</td>
<td>45.9</td>
<td>46.4</td>
<td>3,442</td>
</tr>
<tr>
<td>Prob. Ret &gt; 0% (10yr, cumul.)</td>
<td>1.5</td>
<td>67.4</td>
<td>68.4</td>
<td>3,475</td>
</tr>
<tr>
<td>Prob. Ret &gt; 20% (10yr, cumul.)</td>
<td>3.8</td>
<td>53.3</td>
<td>56.1</td>
<td>3,052</td>
</tr>
<tr>
<td>Prob. Ret &lt; -20% (10yr, cumul.)</td>
<td>0.4</td>
<td>49.3</td>
<td>49.5</td>
<td>2,996</td>
</tr>
</tbody>
</table>

**Note:** Table shows $R^2$s corresponding to the three regressions 4, 5, and 6, using the RAND survey. Each row corresponds to a different question in the survey.

In Table A.3, we repeat the analysis from Table VII in the text, reporting the share of total variance that is explained by time fixed effects, individual fixed effects, and both. We require that individuals have responded at least 3 times, consistent with Table VII in the text that uses the GMS-Vanguard survey. We perform the analysis using six different questions asked in the RAND survey: the probability that the 1-year return is above 0%, above 20% or below -20%, and the probability that the cumulative 10-year return is above 0%, above 20%, or below -20%. Table A.4 repeats the robustness exercise from Table VIII, and increases the number of responses required to be included in the analysis from 3 to 50. Both tables show results qualitatively and quantitatively similar to the ones in the GMS-Vanguard survey, with the individual fixed effects robustly explaining 50-60% of the total variation, and the time fixed effects explaining 1-4%.
Table A.4: Decomposing Variation in Beliefs: Robustness (RAND)

<table>
<thead>
<tr>
<th>Panel A: R² (total, %)</th>
<th>#Resp≥3</th>
<th>#Resp≥4</th>
<th>#Resp≥5</th>
<th>#Resp≥6</th>
<th>#Resp≥10</th>
<th>#Resp≥30</th>
<th>#Resp≥50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prob. Ret &gt; 0% (1yr)</td>
<td>56.8</td>
<td>56.8</td>
<td>56.8</td>
<td>56.8</td>
<td>56.9</td>
<td>57.9</td>
<td>58.1</td>
</tr>
<tr>
<td>Prob. Ret &gt; 20% (1yr)</td>
<td>47.1</td>
<td>47.0</td>
<td>46.9</td>
<td>46.8</td>
<td>46.8</td>
<td>46.6</td>
<td>47.0</td>
</tr>
<tr>
<td>Prob. Ret &lt; -20% (1yr)</td>
<td>45.9</td>
<td>45.9</td>
<td>45.8</td>
<td>45.8</td>
<td>45.9</td>
<td>45.5</td>
<td>49.1</td>
</tr>
<tr>
<td>Prob. Ret &gt; 0% (10yr, cumul.)</td>
<td>67.4</td>
<td>67.4</td>
<td>67.4</td>
<td>67.6</td>
<td>68.7</td>
<td>70.2</td>
<td></td>
</tr>
<tr>
<td>Prob. Ret &gt; 20% (10yr, cumul.)</td>
<td>53.3</td>
<td>53.2</td>
<td>53.1</td>
<td>53.0</td>
<td>52.7</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Prob. Ret &lt; -20% (10yr, cumul.)</td>
<td>49.3</td>
<td>49.3</td>
<td>49.2</td>
<td>49.1</td>
<td>48.2</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Panel B: N. of obs.</th>
<th>#Resp≥3</th>
<th>#Resp≥4</th>
<th>#Resp≥5</th>
<th>#Resp≥6</th>
<th>#Resp≥10</th>
<th>#Resp≥30</th>
<th>#Resp≥50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prob. Ret &gt; 0% (1yr)</td>
<td>3,475</td>
<td>3,349</td>
<td>3,211</td>
<td>3,135</td>
<td>2,737</td>
<td>977</td>
<td>552</td>
</tr>
<tr>
<td>Prob. Ret &gt; 20% (1yr)</td>
<td>3,358</td>
<td>3,215</td>
<td>3,067</td>
<td>2,970</td>
<td>2,587</td>
<td>932</td>
<td>510</td>
</tr>
<tr>
<td>Prob. Ret &lt; -20% (1yr)</td>
<td>3,442</td>
<td>3,305</td>
<td>3,163</td>
<td>3,077</td>
<td>2,667</td>
<td>954</td>
<td>520</td>
</tr>
<tr>
<td>Prob. Ret &gt; 0% (10yr, cumul.)</td>
<td>3,475</td>
<td>3,345</td>
<td>3,205</td>
<td>3,123</td>
<td>2,728</td>
<td>973</td>
<td>555</td>
</tr>
<tr>
<td>Prob. Ret &gt; 20% (10yr, cumul.)</td>
<td>3,052</td>
<td>2,836</td>
<td>2,654</td>
<td>2,425</td>
<td>1,156</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Prob. Ret &lt; -20% (10yr, cumul.)</td>
<td>2,996</td>
<td>2,780</td>
<td>2,576</td>
<td>2,348</td>
<td>1,122</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Note: Panel A of the table reports the R² statistics corresponding to regression 5. In each column, going from left to right, we increase from 3 to 50 the minimum number of responses for an individual to be included in the sample. Panel B reports the number of observations. Each row corresponds to a different question in the survey.
In this Appendix, we present screenshots of one complete survey flow. In this iteration of the flow, questions about expected stock returns were asked ahead of questions about expected GDP growth; the survey implementation randomizes across these two blocks of questions. We begin by reviewing the invitation email sent to individuals from Vanguard.

Subject: [TEST] We need your help, Jane Doe
From: Vanguard (vanguard@eonline.e-vanguard.com)
To: oea_test@yahoo.com;
Date: Monday, February 13, 2017 10:58 AM

Dear Jane Doe:

Vanguard is conducting a study to understand how investors are thinking about the future of the stock market, the economy and interest rates.

We are inviting you to provide us with your thoughts by completing a short survey. This survey should take less than ten minutes to complete.

This survey is not a test of your knowledge. Rather, it asks only about your beliefs and expectations. Importantly, it does not ask for any personal financial information.

The results of the survey will be used for research purposes only. This survey is not sales-related in any way. Your responses will be reported in aggregate with other responses. We plan to publish the results in an article or research report on vanguard.com.

To participate in the survey, please click here.

We'd also like to send you this survey up to six times in the coming year, to see if your beliefs are changing. If you want to be removed from this study, you have the option to click the unsubscribe link below.

If you have any questions about this survey, please call 800-662-2739 and refer to this code: EXP.

Thank you for participating, and for sharing your thoughts with Vanguard.

Regards,

Stephen Utkus
Principal
Vanguard
Dear Investor,

Thank you for participating in this study.

At Vanguard we are interested in understanding investor views on the future of the stock market, the economy and interest rates. We plan to create an investor sentiment index to share these findings with the investing public.

This is a short survey that should take you no more than 5-10 minutes to complete.

The survey does not collect any personal information. It relies on your general knowledge.

If you feel you are not familiar with a topic, that is fine. Please just give us your best prediction.

Please do not use the browser’s navigation button to move through the survey.

For these questions, we would like to know what you are expecting the future returns of the US stock market to be.

What do you expect the return of the US stock market to be over the next 12 months?

Note: This expected return is the change in value, in percent, that you expect to receive over the next 12 months from investing in a portfolio that holds all stocks listed on the US stock market. It includes both dividends and capital gains/losses.

(Please answer only with a positive or negative numeric value, with at most 1 decimal.)

% over the next 12 months
What do you expect the **average** annual return of the US stock market to be **over the next 10 years**?

Note: This expected return is the change in value, in percent, that you expect to receive each year on average over the next 10 years from investing in a portfolio that holds all stocks listed on the US stock market. It includes both dividends and capital gains/losses.

*(Please answer only with a positive or negative numeric value, with at most 1 decimal.)*

% per year, over the next 10 years

---

In this question we present you with five possible scenarios for US stock market returns **over the next 12 months**.

The US stock market return will be...

- Scenario 1: **more than 40%** over the next year.
- Scenario 2: **between 30% and 40%** over the next year.
- Scenario 3: **between -10% and 30%** over the next year.
- Scenario 4: **between -30% and -10%** over the next year.
- Scenario 5: **less than -30%** over the next year.

Please let us know how likely you think it is that each scenario will occur.

Please type in the number to indicate the probability, in percent, that you attach to each scenario. The probabilities of the five scenarios have to sum up to 100%. The graphic bar chart on the right updates automatically to reflect your answers.

*(Please answer only with a positive numeric value, with at most 1 decimal.)*

<table>
<thead>
<tr>
<th>Scenario</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>more than 40%</td>
<td></td>
</tr>
<tr>
<td>between 30% and 40%</td>
<td></td>
</tr>
<tr>
<td>between -10% and 30%</td>
<td></td>
</tr>
<tr>
<td>between -30% and -10%</td>
<td></td>
</tr>
<tr>
<td>less than -30%</td>
<td></td>
</tr>
</tbody>
</table>

Total: 0.0%

Remaining probability to fill in: 100.0%
In this question we present you with five possible scenarios for US stock market returns over the next 12 months.

The US stock market return will be...

- Scenario 1: more than 40% over the next year.
- Scenario 2: between 30% and 40% over the next year.
- Scenario 3: between -10% and 30% over the next year.
- Scenario 4: between -30% and -10% over the next year.
- Scenario 5: less than -30% over the next year.

Please let us know how likely you think it is that each scenario will occur.

Please type in the number to indicate the probability, in percent, that you attach to each scenario. The probabilities of the five scenarios have to sum up to 100%. The graphic bar chart on the right updates automatically to reflect your answers.

(Please answer only with a positive numeric value, with at most 1 decimal.)

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>more than 40%</td>
<td>2.5%</td>
</tr>
<tr>
<td>between 30% and 40%</td>
<td>20%</td>
</tr>
<tr>
<td>between -10% and 30%</td>
<td>55%</td>
</tr>
<tr>
<td>between -30% and -10%</td>
<td>15%</td>
</tr>
<tr>
<td>less than -30%</td>
<td>7.5%</td>
</tr>
<tr>
<td>Total</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Remaining probability to fill in: 0.0%

Next
How confident are you with your answers to the questions about the stock market that you were just asked?

- Extremely confident
- Very confident
- Somewhat confident
- Not very confident
- Not at all confident

In the next questions, we would like to know what you are expecting future economic growth in the US to be. Again, even if you feel that you are not familiar with the topic, please give us your best prediction.

What do you expect the average annual growth rate of real GDP in the US to be over the next 3 years?

Note: Real Gross Domestic Product (GDP) is a measure of economic activity. Real GDP is the total real value of goods and services produced in the US in a year.

(Please answer only with a positive or negative numeric value with at most 1 decimal)

% per year, over the next 3 years
What do you expect the **average** annual growth rate of real GDP in the US to be **over the next 10 years**?

Note: Real Gross Domestic Product (GDP) is a measure of economic activity. Real GDP is the total real value of goods and services produced in the US in a year.

*(Please answer only with a positive or negative numeric value with at most 1 decimal.)

<table>
<thead>
<tr>
<th>% per year, over the next 10 years</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

**radius**

In this question we present you with five possible scenarios for US real GDP **average annual growth rate, over the next 3 years**.

US real GDP average annual growth rate over the next 3 years will be.

- Scenario 1: **more than 9%** per year.
- Scenario 2: **between 3% and 9%** per year.
- Scenario 3: **between 0% and 3%** per year.
- Scenario 4: **between -3% and 0%** per year.
- Scenario 5: **less than -3%** per year.

Please let us know how likely you think it is that each scenario will occur.

Please type in the number to indicate the probability, in percent, that you attach to each scenario. The probabilities of the five scenarios have to sum up to 100%. The graphic bar chart on the right updates automatically to reflect your answers.

*(Please answer only with a positive numeric value, with at most 1 decimal.)*

<table>
<thead>
<tr>
<th>more than 9%</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>between 3% and 9%</td>
<td>%</td>
</tr>
<tr>
<td>between 0% and 3%</td>
<td>%</td>
</tr>
<tr>
<td>between -3% and 0%</td>
<td>%</td>
</tr>
<tr>
<td>less than -3%</td>
<td>%</td>
</tr>
<tr>
<td>Total</td>
<td>0.0%</td>
</tr>
</tbody>
</table>

Remaining probability to fill in: 100.0%
How difficult were the questions about real GDP growth that you were just asked?

- Not at all difficult
- Not very difficult
- Somewhat difficult
- Very difficult
- Extremely difficult

How confident are you with your answers to the questions about real GDP growth that you were just asked?

- Extremely confident
- Very confident
- Somewhat confident
- Not very confident
- Not at all confident

In these final questions, we would like to know what you are expecting future returns on US bonds and future US interest rates to be.

Again, even if you feel that you are not familiar with the topic, please give us your best prediction.
Suppose that you were to buy a 10-year US Treasury bond today that makes all of its payments at maturity 10 years from now. Suppose that you were to sell this bond a year from today. What do you expect the return from this bond investment to be over the next 12 months?

Note: This expected return is the change in price of the bond that you expect to occur during the next 12 months.

(Please answer only with a positive or negative numeric value with at most 1 decimal.)

% over the next 12 months

In this question we would like to understand your views of future interest rates on US Treasury bonds of different maturities. To familiarize yourself with the question, review the figure below of the current annual interest rates on 1-year, 5-year and 10-year US Treasury bonds.

Note: These annual interest rates, also known as yields to maturity, are the annual returns that these different government bonds will pay if you hold them to their maturity—in one, five or ten years, respectively.

![Current interest rates on US treasury bonds](image-url)
What do you expect annual interest rates to be **one year from today** on US Treasury bonds of 1-year, 5-year, and 10-year maturity?

Please type in the number to indicate the annual interest rate, i.e. yield to maturity, that you expect will prevail one year from today for each maturity. The yield curve graphic on the right updates automatically to reflect your answers.

(Please answer only with a positive or negative numeric value, ranging from -2% to 10%, with at most 1 decimal.)

Expected interest rates on US treasury bonds

- 1-year bond: __% annual interest rate
- 5-year bond: __% annual interest rate
- 10-year bond: __% annual interest rate
How difficult were the questions about bonds and interest rates that you were just asked?

- Not at all difficult
- Not very difficult
- Somewhat difficult
- Very difficult
- Extremely difficult

How confident are you with your answers to the questions about bonds and interest rates that you were just asked?

- Extremely confident
- Very confident
- Somewhat confident
- Not very confident
- Not at all confident