Lost in Transmission:
Experimental Instructions

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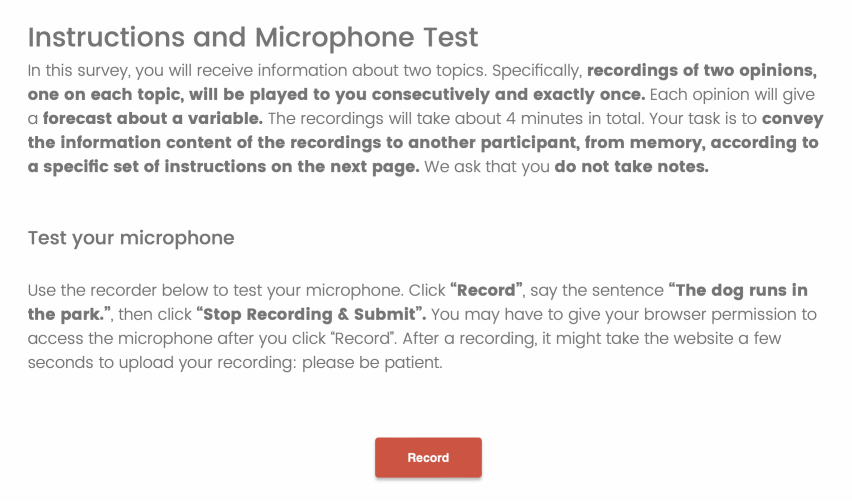
1 Transmitter Experiment: Belief Movement Incentives

Instructions



Instructions

Thanks for recording your first voice message! This study will take **approximately 20 minutes** to complete. You will earn a **reward of $4.00 for completing the survey**.

In the rest of this study,

- You will listen to a 4-minute recording containing **opinions about two different topics**. **This recording can be played only once.**
- One topic is the revenue growth of a specific US company and the other topic is the home price growth in a specific US city. The opinions and questions about a real company and a real city, but you won't be told which company and which city they refer to. The opinions are **inspired by real commentary** on the company and city, respectively.
- We ask that you **do not take notes** during the recording, and just listen.
- After the recording, you will then be asked to record **two separate voice messages,** one for each of the two opinions you just listened to. Note that, each time, **you can only record yourself once.**
- After you click submit on a recording, it can take a little while to upload. We kindly ask you to be patient. The upload typically takes no more than 1 minute at most.

Your Payment

You should aim to create voice messages that **accurately convey the information content of the recordings you will listen to**.

What do we mean by information content? We mean anything in the message that **affects how people who listen to the message change what they expect about the economic variable that's discussed.** Please read the following carefully.

- In a separate survey, other respondents will listen to the original message. They will be asked to make a guess (in percent) about how the variable discussed in the message will change over the next 12 months, both **before** and **after** hearing the message. The change in a respondent's answer from before to after hearing the original message is what we call their **belief change.**
- Your job is to record a message that induces belief changes that are as close as possible to the average belief changes induced by the original message. In order to do this, **you should pass on anything from the original message that you think would be relevant for how people change their beliefs.**
- Specifically, one in ten respondents to this survey will be randomly selected to be eligible for a bonus payment of $20.
- If selected, your voice message will be played to some other participants, and we will measure their belief changes after hearing your voice message.
- **Your likelihood of receiving the bonus payment depends on how close the average belief change based on your message is to the average belief change based on the original message.**
- Specifically, your percentage likelihood of receiving a bonus payment will be 100-10*(average belief change induced by your message, in percent - average belief change induced by the original message, in percent)^2
- Additionally, one in ten respondents will be selected to be eligible for a bonus payment for accurate responses to other questions in this survey. If selected, one of these questions will be randomly chosen to have its bonus implemented.

Comprehension questions

Please answer the comprehension questions below. Note that if you fail them twice in a row, you will not be eligible for the completion payment.

Which one of the following statements is true?

- ○ To maximize my earnings, I should imitate the original message, but in a different accent or voice.
- ○ To maximize my earnings, I should describe the general topic of the original message without being specific about the contents of the message.
- ○ To maximize my earnings, I should pass on all information from the original message that I think will influence how people change their beliefs.

Which one of the following statements is true?

- ○ I can play the original recording only once, and I can record each voice message only once.
- ○ I can only play the original recording once, but can do as many practice messages as I want before submitting my final voice messages.
- ○ I can play the original recording as many times as I want, but can only record myself once.

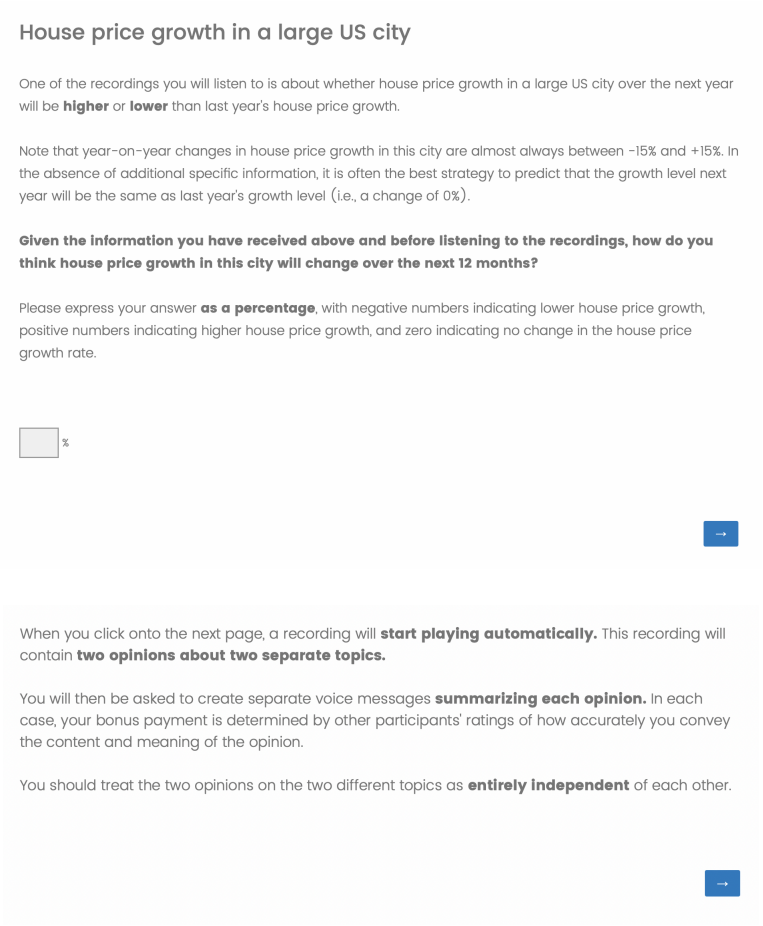
Which one of the following statements is true?

- ○ I will be paid based on how many questions I can answer correctly about the original recording.
- ○ I will be paid based on how close the average belief change induced by my recording is to the average belief change induced by the original recording.
- ○ I will be paid based on how similar other respondents say my recording is to the original recording.

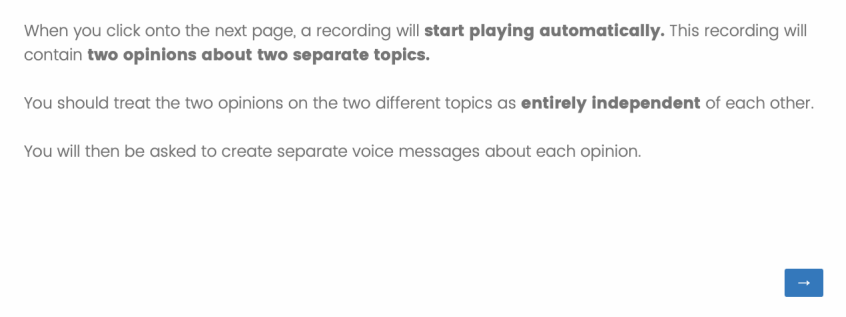
Which one of the following statements is true?

- ○ I should try to write down the original recording word-for-word while listening to it.
- ○ I should just listen to the original recording, not taking notes.

Prior Beliefs

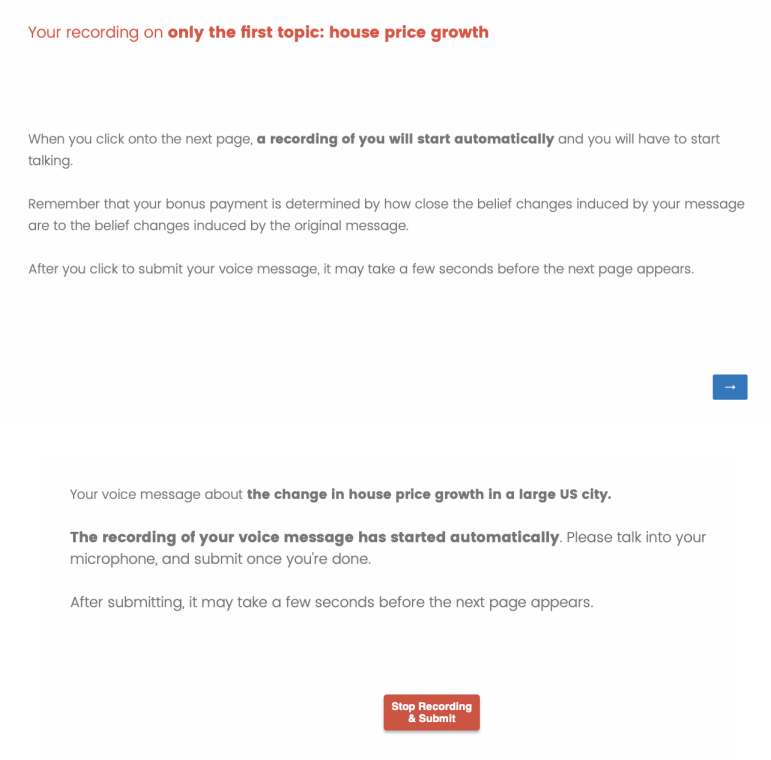


Original Recording



The recordings of the two opinions are now playing, back-to-back. Ensure you can hear the voice clearly!

Recording the Voice Message



Your recording on **only the second topic: change in revenue growth in a retail company**

When you click onto the next page, **a recording of you will start automatically** and you will have to start talking.

Remember that your bonus payment is determined by how close the belief changes induced by your message are to the belief changes induced by the original message.

After you click to submit your voice message, it may take a few seconds before the next page appears.

→

Your voice message about **the change in revenue growth of a large US retail company.**

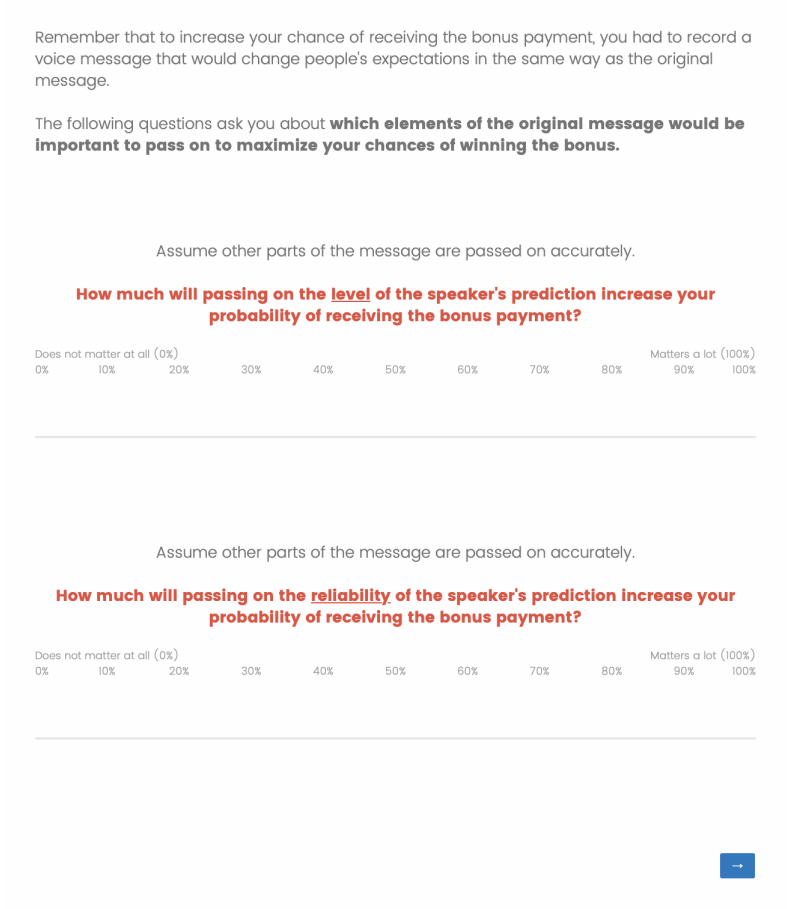
The recording of your voice message has started automatically. Please talk into your microphone, and submit once you're done.

After submitting, it may take a few seconds before the next page appears.

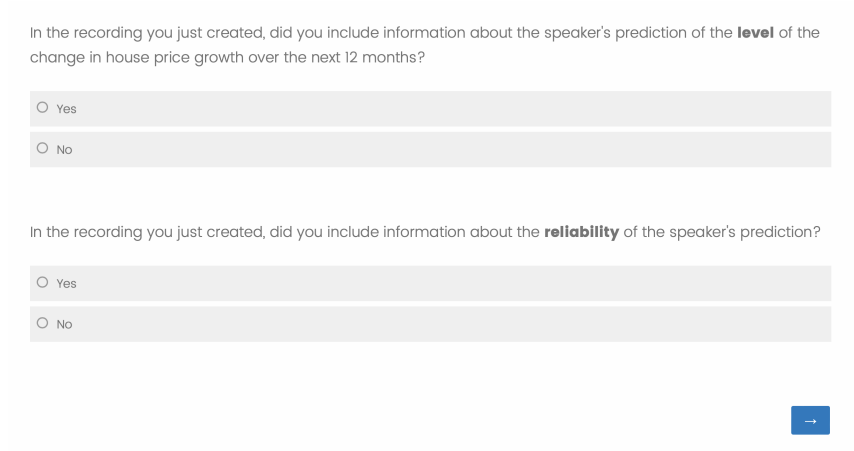
Stop Recording & Submit

Randomly Assigned Questions after the Audio Recording

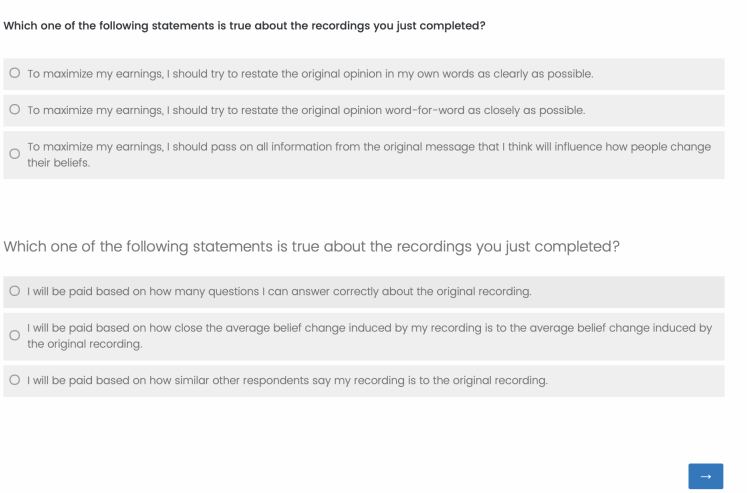
Arm I: Importance of Level and Reliability



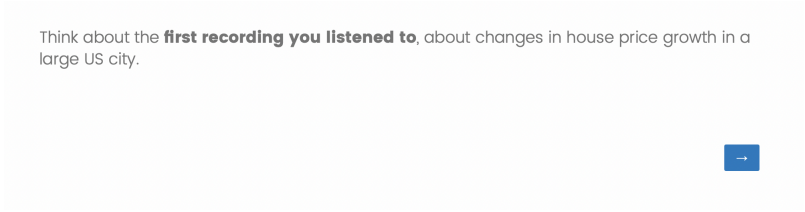
Arm II: Did You Pass on Level/Reliability

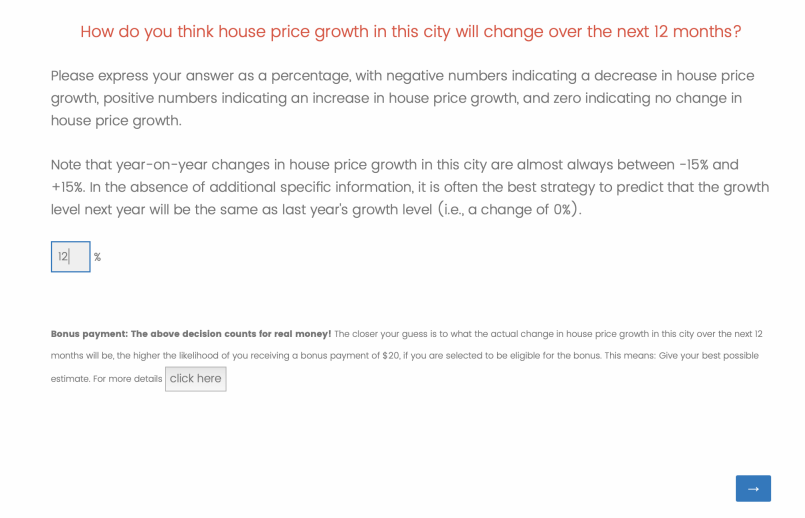


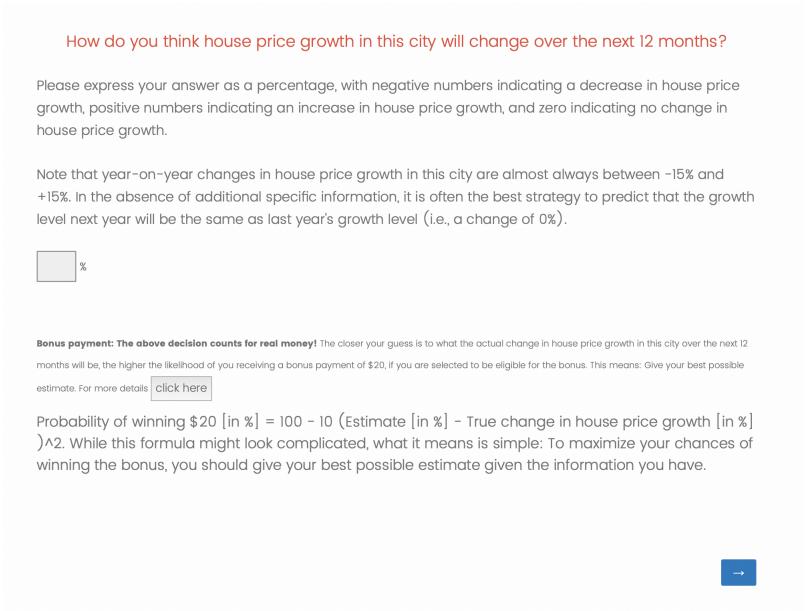
Arm III: Repeat Comprehension Questions



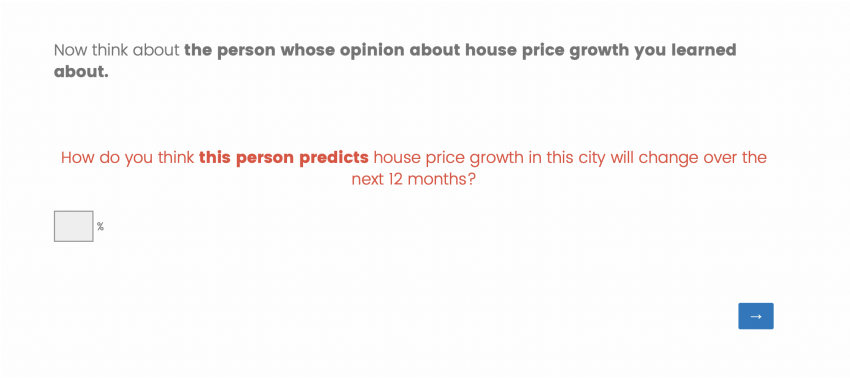
Own Beliefs







Message Beliefs, Level: Unincentivized Wording



Message Beliefs, Reliability: Incentivized Wording

Your task is to guess how other people would respond to the following question. Below, enter your best guess of what people would on average respond if asked the question in red.

How **reliable** do you think this person's prediction is?

Specifically, what do you think is **the probability** that this person's forecasts about changes in house price growth in this city **are roughly correct?** Concretely, assuming that the true change in house price growth is a number called X, what do you think is the likelihood that this person's prediction will fall within 1% of X, i.e. between X-1% and X+1%?

Extremely unreliable 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% Extremely reliable 100%

Bonus payment: The above decision counts for real money! The closer your guess is to the average guess that a different group of participants made for the same question after listening to the same recording, the higher the likelihood of you receiving a bonus payment of $20, if you are selected to be eligible for the bonus. This means: Give your best possible estimate. For more details click here

Probability of winning $20 [in %] = 100 - 2 (Estimate [in %] - Average estimate of others [in %])^2. While this formula might look complicated, what it means is simple: To maximize your chances of winning the bonus, you should give your best possible answer given the information you have.

→

Other Topic Beliefs

Think about the **second recording you listened to**, about the change in revenue growth of the large US retail company.

→

How do you think the revenue growth of this company will change over the next 12 months?

Please express your answer as a percentage, with negative numbers indicating a decrease in revenue growth, positive numbers indicating an increase in revenue growth, and zero indicating no change in revenue growth.

Note that year-on-year changes in revenue growth of this company are almost always between -10% and +10%. In the absence of additional specific information, it is often the best strategy to predict that the growth level next year will be the same as last year's growth level (i.e., a change of 0%).

%

Bonus payment: The above decision counts for real money! The closer your guess is to what the actual change in revenue growth in this company over the next 12 months will be, the higher the likelihood of you receiving a bonus payment of $20, if you are selected to be eligible for the bonus. This means: Give your best possible estimate. For more details click here

Probability of winning $20 [in %] = 100 - 10 (Estimate [in %] - True change in revenue growth [in %])^2. While this formula might look complicated, what it means is simple: To maximize your chances of winning the bonus, you should give your best possible estimate given the information you have.

→

Now think about **the person whose opinion about revenue growth you learned about.**

Your task is to guess how other people would respond to the following question. Below, enter your best guess of what people would on average respond if asked the question in red.

How do you think **this person predicts** revenue growth in this company will change over the next 12 months?

[ ] %

Bonus payment: The above decision counts for real money! The closer your guess is to the average guess that a different group of participants made for the same question after listening to the same recording, the higher the likelihood of you receiving a bonus payment of $20, if you are selected to be eligible for the bonus. This means: Give your best possible estimate. For more details click here

Probability of winning $20 [in %] = 100 - 10 (Estimate [in %] - Average estimate of others [in %])^2. While this formula might look complicated, what it means is simple: To maximize your chances of winning the bonus, you should give your best possible answer given the information you have.

→

Your task is to guess how other people would respond to the following question. Below, enter your best guess of what people would on average respond if asked the question in red.

How **reliable** do you think this person's prediction is?

Specifically, what do you think is **the probability** that this person's forecasts about changes in this company's revenue growth **are roughly correct?** Concretely, assuming that the true change in revenue growth is a number called X, what do you think is the likelihood that this person's prediction will fall within 1% of X, i.e. between X-1% and X+1%?

Extremely unreliable — Extremely reliable

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Bonus payment: The above decision counts for real money! The closer your guess is to the average guess that a different group of participants made for the same question after listening to the same recording, the higher the likelihood of you receiving a bonus payment of $20, if you are selected to be eligible for the bonus. This means: Give your best possible estimate. For more details click here

Probability of winning $20 [in %] = 100 - 2 (Estimate [in %] - Average estimate of others [in %])^2. While this formula might look complicated, what it means is simple: To maximize your chances of winning the bonus, you should give your best possible answer given the information you have.

→

Thank you for completing that section. Please remember that these were **example opinion pieces inspired by real commentary, not themselves real opinion pieces.**

Other people saw opinion pieces arguing for the opposite conclusions.

Did you experience any technical difficulties? If so, please let us know below.

While you were listening to the audio recordings, did you take written notes on their contents?

Please answer honestly. Your answer to this question will not affect your payment in any way.

- ○ Yes
- ○ No

→

Eliciting Participant Characteristics

Raven's Matrices

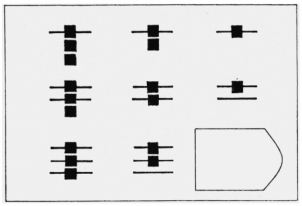
We will now ask you a series of timed questions.

Please do your best and do not use the Internet or other external resources. Your answers to these questions will not affect your bonus payment.

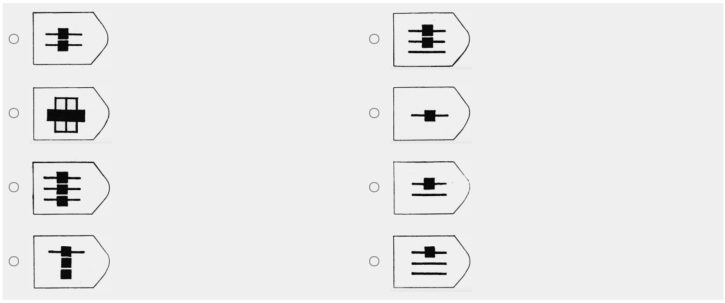
→

Picture Puzzle (45 second timer)

Each row below gives an example of the **same pattern.** Your job is to **guess which of the 8 pictures below completes the third row.**



Which of the following options **completes the third row?**

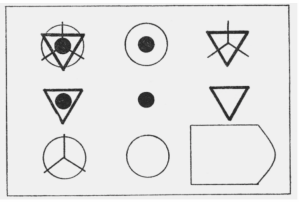


3|2

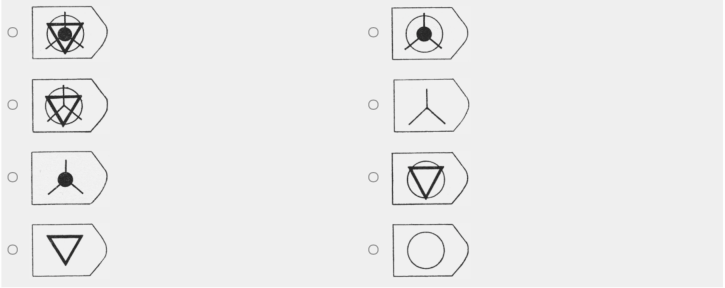
→

Picture Puzzle (45 second timer)

Each row below gives an example of the **same pattern.** Your job is to **guess which of the 8 pictures below completes the third row.**



Which of the following options **completes the third row?**

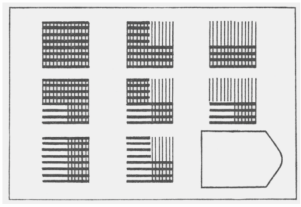


3|3

→

Picture Puzzle (45 second timer)

Each row below gives an example of the **same pattern.** Your job is to **guess which of the 8 pictures below completes the third row.**



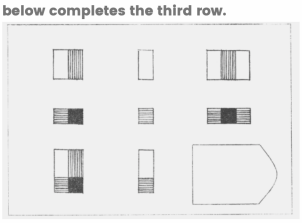
Which of the following options **completes the third row?**

33

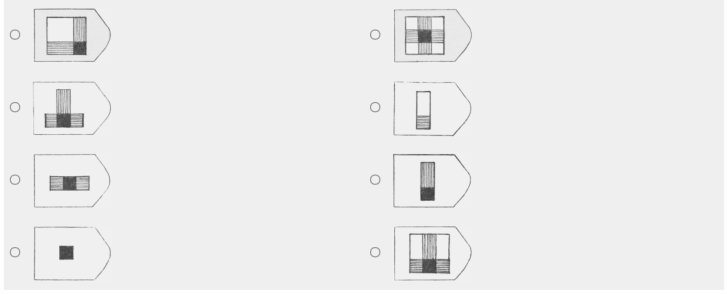
→

Picture Puzzle (45 second timer)

Each row below gives an example of the **same pattern.** Your job is to **guess which of the 8 pictures below completes the third row.**



Which of the following options **completes the third row?**

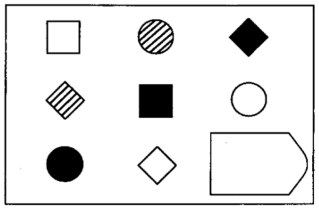


3|6

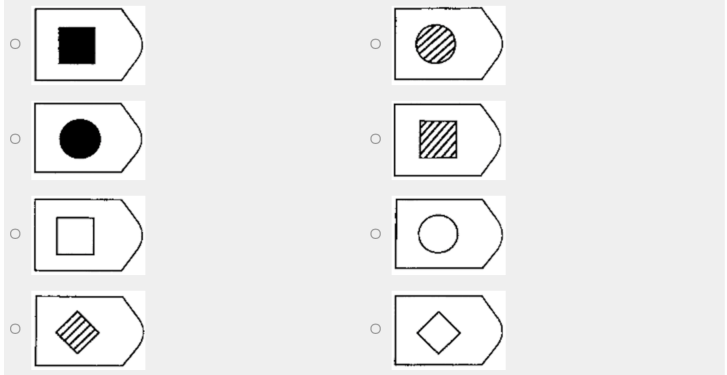
→

Picture Puzzle (45 second timer)

Each row below gives an example of the **same pattern.** Your job is to **guess which of the 8 pictures below completes the third row.**

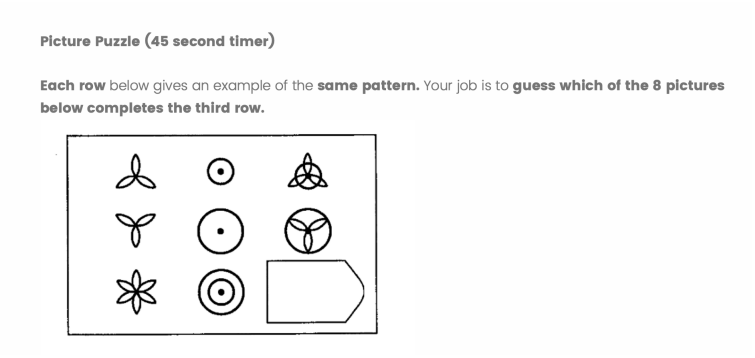


Which of the following options **completes the third row?**

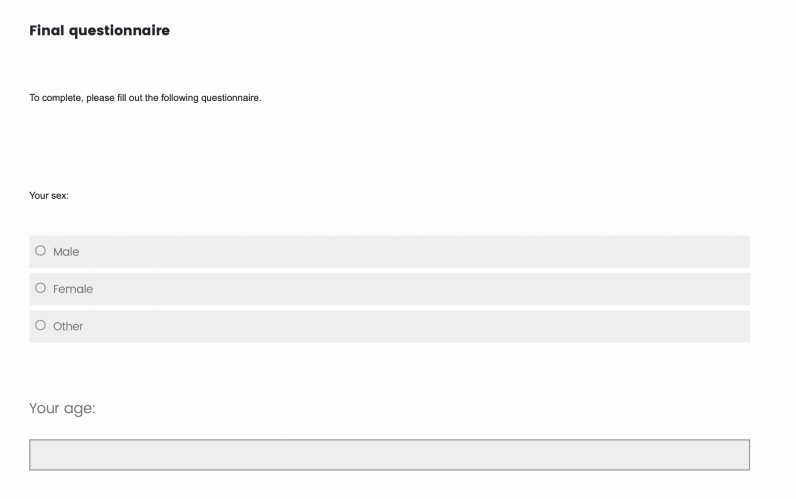


3|4

→



Demographics



What is the highest level of school you have completed or the highest degree you have received?

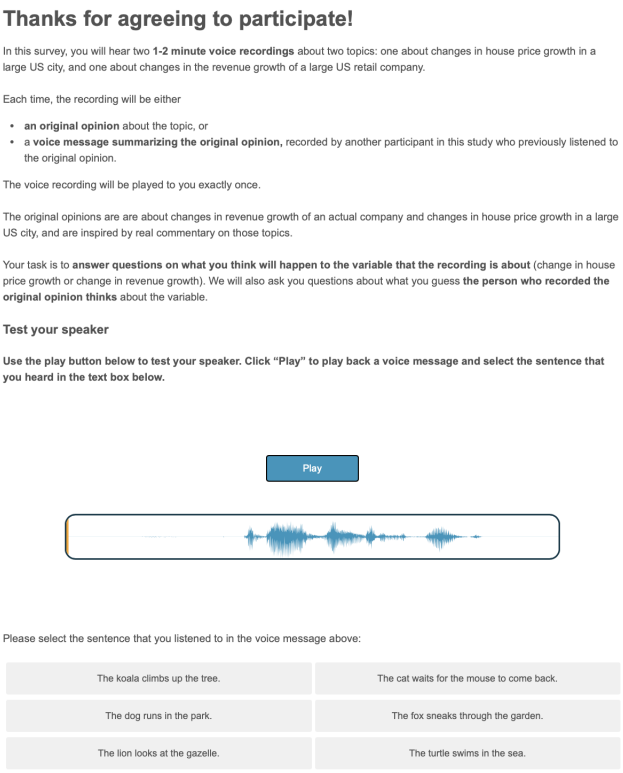
- ○ Less than high school degree
- ○ High school graduate (high school diploma or equivalent including GED)
- ○ Some college but no degree
- ○ Associate degree in college (2-year)
- ○ Bachelor's degree in college (4-year)
- ○ Master's degree
- ○ Doctoral degree
- ○ Professional degree (JD, MD)

Which statement best describes your current employment status?

- ○ Working (paid employee)
- ○ Working (self-employed)
- ○ Not working
- ○ Prefer not to answer

2 Listener Experiment: Belief Movement Incentives

Introduction



Thanks for agreeing to participate!

In this survey, you will hear two **1-2 minute voice recordings** about two topics: one about changes in house price growth in a large US city, and one about changes in the revenue growth of a large US retail company.

Each time, the recording will be either

- **an original opinion** about the topic, or
- a **voice message summarizing the original opinion,** recorded by another participant in this study who previously listened to the original opinion.

The voice recording will be played to you exactly once.

The original opinions are are about changes in revenue growth of an actual company and changes in house price growth in a large US city, and are inspired by real commentary on those topics.

Your task is to **answer questions on what you think will happen to the variable that the recording is about** (change in house price growth or change in revenue growth). We will also ask you questions about what you guess **the person who recorded the original opinion thinks** about the variable.

Test your speaker

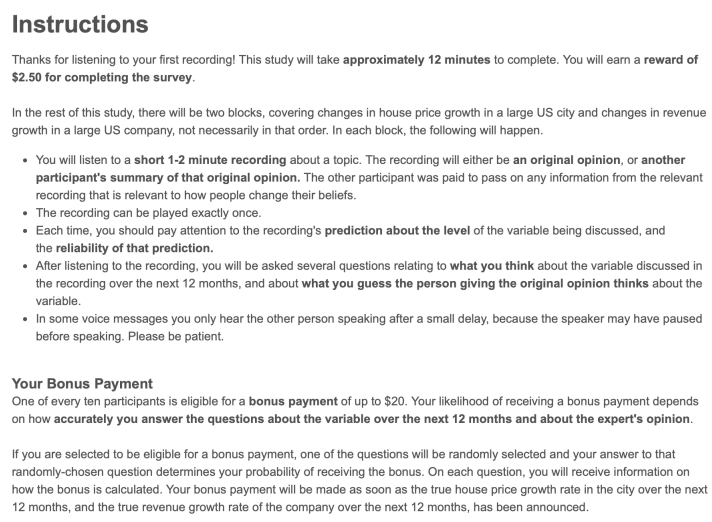
Use the play button below to test your speaker. Click "Play" to play back a voice message and select the sentence that you heard in the text box below.

Play

Please select the sentence that you listened to in the voice message above:

The koala climbs up the tree.	The cat waits for the mouse to come back.
The dog runs in the park.	The fox sneaks through the garden.
The lion looks at the gazelle.	The turtle swims in the sea.

Instructions



Instructions

Thanks for listening to your first recording! This study will take **approximately 12 minutes** to complete. You will earn a **reward of $2.50 for completing the survey**.

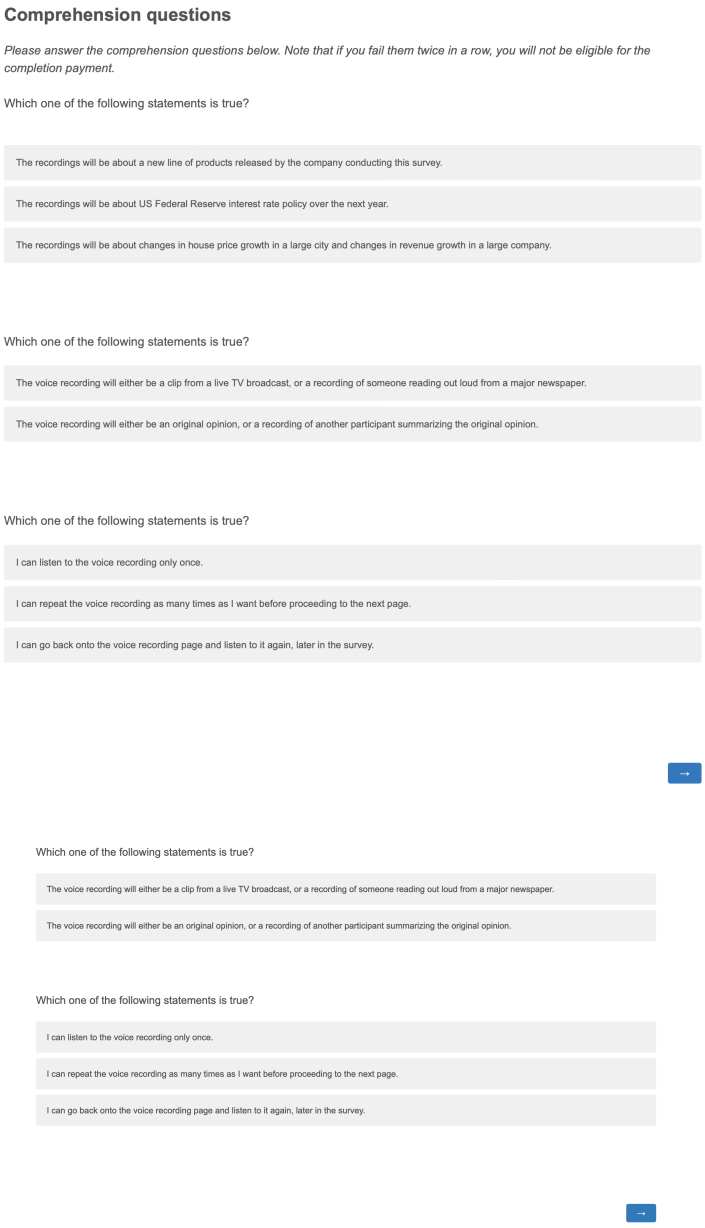
In the rest of this study, there will be two blocks, covering changes in house price growth in a large US city and changes in revenue growth in a large US company, not necessarily in that order. In each block, the following will happen.

- You will listen to a **short 1-2 minute recording** about a topic. The recording will either be **an original opinion**, or **another participant's summary of that original opinion.** The other participant was paid to pass on any information from the relevant recording that is relevant to how people change their beliefs.
- The recording can be played exactly once.
- Each time, you should pay attention to the recording's **prediction about the level** of the variable being discussed, and the **reliability of that prediction.**
- After listening to the recording, you will be asked several questions relating to **what you think** about the variable discussed in the recording over the next 12 months, and about **what you guess the person giving the original opinion thinks** about the variable.
- In some voice messages you only hear the other person speaking after a small delay, because the speaker may have paused before speaking. Please be patient.

Your Bonus Payment

One of every ten participants is eligible for a **bonus payment** of up to $20. Your likelihood of receiving a bonus payment depends on how **accurately you answer the questions about the variable over the next 12 months and about the expert's opinion**.

If you are selected to be eligible for a bonus payment, one of the questions will be randomly selected and your answer to that randomly-chosen question determines your probability of receiving the bonus. On each question, you will receive information on how the bonus is calculated. Your bonus payment will be made as soon as the true house price growth rate in the city over the next 12 months, and the true revenue growth rate of the company over the next 12 months, has been announced.



Main Experiment

Revenue growth of a large US company

On the page after next, a recording will **start playing automatically.** The recording is **a summary of an original opinion** about **changes in revenue growth of a large US company in the next 12 months.**

Please pay close attention to the recording. It may take a few seconds for the recording to start. We ask you to **not** take notes but focus on listening.

After listening to the recording, you will be asked the following questions:

> How do you think the revenue growth of this company will change over the next 12 months?
>
> Thinking about the person whose opinion was summarized in the recording, how do you think this person predicts the revenue growth of this company will change over the next 12 months?
>
> Thinking about the person whose opinion was summarized, how reliable do you think their prediction is?

Each question is equally likely to be chosen for the bonus payment.

→

Prior

For context, note that year-on-year changes in revenue growth in this company are almost always between -10% and +10%. In the absence of additional specific information, it is often the best strategy to predict that the growth level next year will be the same as last year's growth level (i.e., a change of 0%).

Given the information you have received above and before listening to the recording, how do you think revenue growth in this company will change over the next 12 months?

Please express your answer **as a percentage**, with negative numbers indicating a decrease in revenue growth, positive numbers indicating an increase in revenue growth, and zero indicating no change in revenue growth.

☐ %

On the next page, a recording will start playing automatically.

→

Listening to Recording

We will now ask you questions relating to **what you think** about the revenue growth of this company over the next 12 months.

→

Own Beliefs

How do you think the revenue growth of this company will change over the next 12 months?

Please express your answer as a percentage, with negative numbers indicating a decrease in revenue growth, positive numbers indicating an increase in revenue growth, and zero indicating no change in revenue growth.

Note that year-on-year changes in revenue growth of this company are almost always between -10% and +10%. In the absence of additional specific information, it is often the best strategy to predict that the growth level next year will be the same as last year's growth level (i.e., a change of 0%).

[ ] %

Bonus payment: The above decision counts for real money! The closer your guess is to what the actual change in revenue growth of this company over the next 12 months will be, the higher the likelihood of you receiving a bonus payment of $20. This means: Give your best possible estimate. For more details click here

→

You just listened to a **summary of an original opinion** about changes in revenue growth in a large US company. The person providing the summary was incentivized to pass on the original opinion as accurately as they could.

Please think of your best guess about **how the person whose opinion was summarized predicts revenue growth in this company will change over the next 12 months.**

Note the following questions are **not about the opinion of the person you just listened to**, but about **the opinion of the person they were summarizing.**

→

Message Beliefs: Unincentivized Versions

How do you think **the person whose opinion was summarized in the recording predicts** the company's revenue growth will change over the next 12?

Please express your answer as a percentage, with negative numbers indicating a decrease in revenue growth, positive numbers indicating an increase in revenue growth, and zero indicating no change in revenue growth.

[ ] %

Bonus payment: The above decision counts for real money! The closer your guess is to the average guess that a different group of participants made for the same question after listening to the same recording, the higher the likelihood of you receiving a bonus payment of $20. This means: Give your best possible estimate. For more details click here

→

How **reliable** do you think the prediction given by the person whose opinion was summarized in the recording is?

Specifically, what do you think is **the probability that this person is roughly correct** about their forecast? Indicate the likelihood with which you think the change in revenue growth over the next 12 months will fall between 2% and 4%.

Extremely unreliable 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100% Extremely reliable

Bonus payment: The above decision counts for real money! To maximize your chances of winning a bonus payment of $20, you should express your true belief about the level of reliability of the person's prediction. For more details click here

→

How easy did you find it to follow the reasoning in the recording?

Not easy at all 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100% Extremely easy

→

House price growth in a large US city

On the page after next, a recording will **start playing automatically.** The recording is **a summary of an original opinion** about **changes in house price growth in a large US city in the next 12 months.**

Please pay close attention to the recording. It may take a few seconds for the recording to start. We ask you to **not** take notes but focus on listening.

After listening to the recording, you will be asked the following questions:

> How do you think house price growth in this city will change over the next 12 months?
>
> Thinking about the person whose opinion was summarized in the recording, how do you think this person predicts house price growth in this city will change over the next 12 months?
>
> Thinking about the person whose opinion was summarized, how reliable do you think their prediction is?

Each question is equally likely to be chosen for the bonus payment.

→

Note that year-on-year changes in house price growth in this city are almost always between -15% and +15%. In the absence of additional specific information, it is often the best strategy to predict that the growth level next year will be the same as last year's growth level (i.e., a change of 0%).

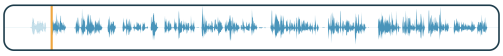
Given the information you have received above and before listening to the recording, how do you think house price growth in this city will change over the next 12 months?

Please express your answer **as a percentage**, with negative numbers indicating a decrease in house price growth, positive numbers indicating an increase in house price growth, and zero indicating no change in house price growth.

[ ] %

On the next page, a recording will start automatically.

→



You just listened to a **summary of an original opinion** about changes in house price growth in a large US city. The person providing the summary was incentivized to pass on the original opinion as accurately as they could.

Please think of your best guess about **how the person whose opinion was summarized predicts house price growth in this city will change over the next 12 months.**

Note these questions are **not about the opinion of the person you just listened to,** but **about the opinion of the person they were summarizing.**

→

How **reliable** do you think the prediction given by the person whose opinion was summarized in the recording is?

Specifically, what do you think is **the probability** that this person's forecasts about house price growth in this city are **roughly correct?** Concretely, assuming that the true change in house price growth is a number called X, what do you think is the likelihood that this person's prediction will fall within 1% of X, i.e. between X-1% and X+1%?

Extremely unreliable — Extremely reliable

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Bonus payment: The above decision counts for real money! The closer your guess is to the average guess that a different group of participants made for the same question after listening to the same recording, the higher the likelihood of you receiving a bonus payment of $20. This means: Give your best possible estimate. For more details click here

We will now ask you questions relating to **what you think** about house prices in this city over the next 12 months.

→

How do you think house price growth in this city will change over the next 12 months?

Please express your answer as a percentage, with negative numbers indicating a decrease in house price growth, positive numbers indicating an increase in house price growth, and zero indicating no change in house price growth.

Note that year-on-year changes in house price growth in this city are almost always between -15% and +15%. In the absence of additional specific information, it is often the best strategy to predict that the growth level next year will be the same as last year's growth level (i.e., a change of 0%).

[ ] %

Bonus payment: The above decision counts for real money! The closer your guess is to what the actual change in house price growth in this city over the next 12 months will be, the higher the likelihood of you receiving a bonus payment of $20. This means: Give your best possible estimate. For more details click here

→

How clear was the audio in the recording?

Not clear at all — Extremely clear

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

→

How easy did you find it to follow the reasoning in the recording?

Not easy at all — Extremely easy

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

→

Did you take notes while listening to the recordings? Your answer to this question will **not** affect your bonus payment, so you can answer honestly.

Yes

No

→

How comfortable did you feel listening to voice recordings of previous respondents?

Very comfortable | Comfortable | Not comfortable | Not at all comfortable

→

Thank you for listening to the recordings! Please remember that the original opinion pieces were inspired by real commentary, they were not themselves real opinion pieces. Other people listened to original opinion pieces arguing for the opposite conclusions.

→

Eliciting Participant Characteristics

Final questionnaire

To complete, please fill out the following questionnaire.

Your sex:

- Male
- Female
- Other

Your age:

Your ethnicity:

- White
- Black or African American
- American Indian or Alaska Native
- Asian
- Native Hawaiian or Pacific Islander
- Other

What is the highest level of school you have completed or the highest degree you have received?

- Less than high school degree
- High school graduate (high school diploma or equivalent including GED)
- Some college but no degree
- Associate degree in college (2-year)
- Bachelor's degree in college (4-year)
- Master's degree
- Doctoral degree
- Professional degree (JD, MD)

Which statement best describes your current employment status?

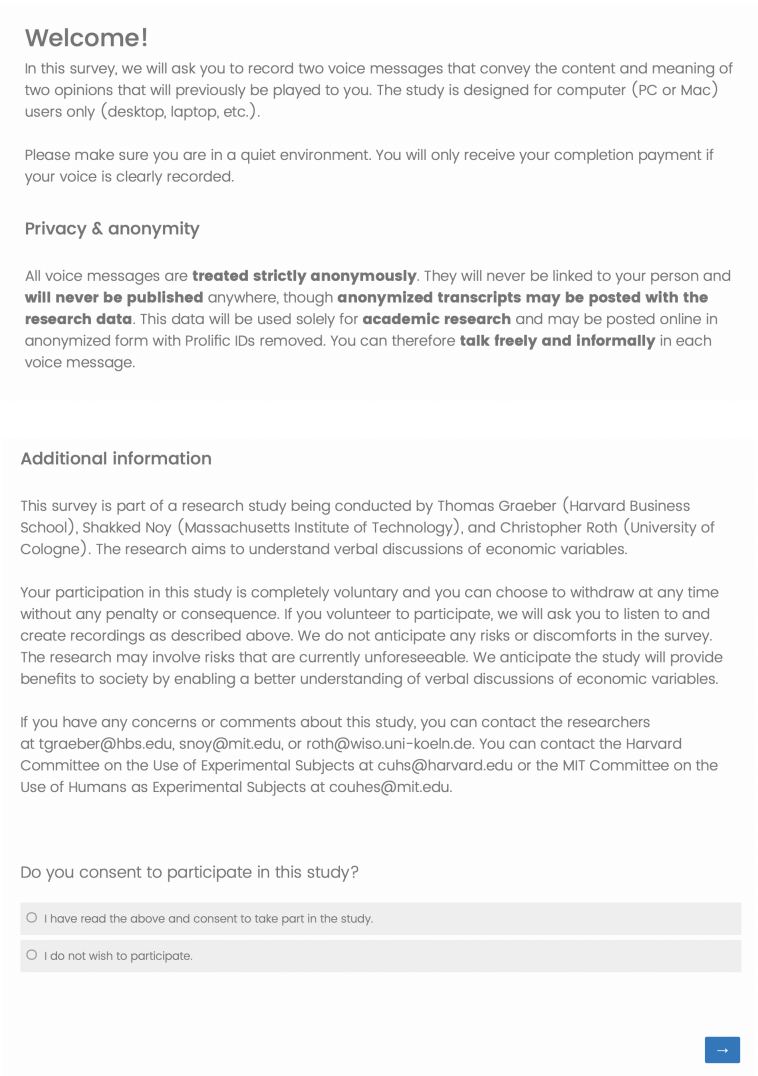
- Working (paid employee)
- Working (self-employed)
- Not working
- Prefer not to answer

In politics, as of today, do you consider yourself a Republican, a Democrat, or an Independent?

- Democrat
- Republican
- Independent
- Other

3 Transmitter Experiment: Content Transmission Incentives

Introduction



Welcome!

In this survey, we will ask you to record two voice messages that convey the content and meaning of two opinions that will previously be played to you. The study is designed for computer (PC or Mac) users only (desktop, laptop, etc.).

Please make sure you are in a quiet environment. You will only receive your completion payment if your voice is clearly recorded.

Privacy & anonymity

All voice messages are **treated strictly anonymously**. They will never be linked to your person and **will never be published** anywhere, though **anonymized transcripts may be posted with the research data**. This data will be used solely for **academic research** and may be posted online in anonymized form with Prolific IDs removed. You can therefore **talk freely and informally** in each voice message.

Additional information

This survey is part of a research study being conducted by Thomas Graeber (Harvard Business School), Shakked Noy (Massachusetts Institute of Technology), and Christopher Roth (University of Cologne). The research aims to understand verbal discussions of economic variables.

Your participation in this study is completely voluntary and you can choose to withdraw at any time without any penalty or consequence. If you volunteer to participate, we will ask you to listen to and create recordings as described above. We do not anticipate any risks or discomforts in the survey. The research may involve risks that are currently unforeseeable. We anticipate the study will provide benefits to society by enabling a better understanding of verbal discussions of economic variables.

If you have any concerns or comments about this study, you can contact the researchers at tgraeber@hbs.edu, snoy@mit.edu, or roth@wiso.uni-koeln.de. You can contact the Harvard Committee on the Use of Experimental Subjects at cuhs@harvard.edu or the MIT Committee on the Use of Humans as Experimental Subjects at couhes@mit.edu.

Do you consent to participate in this study?

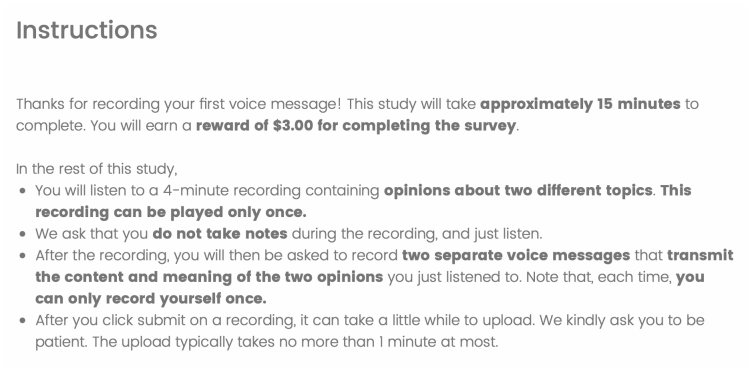
○ I have read the above and consent to take part in the study.

○ I do not wish to participate.

→

Instructions and Microphone Test

Microphone test same as in Transmitter Accuracy Experiment



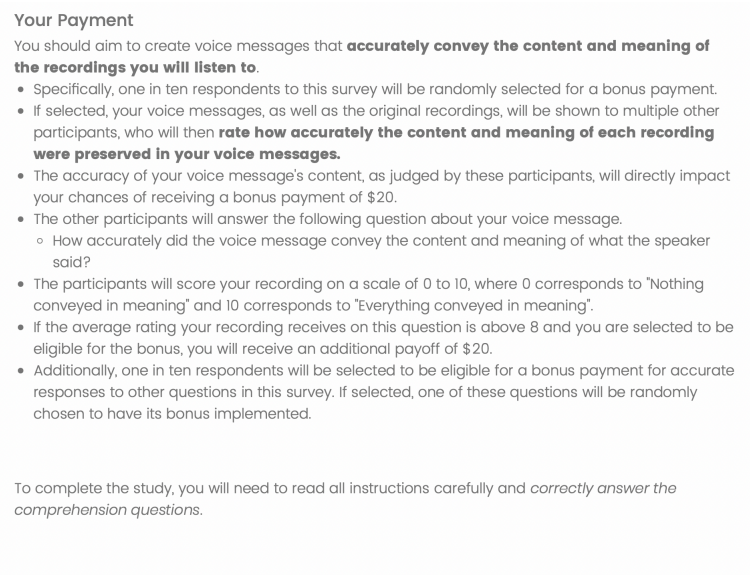
Instructions

Thanks for recording your first voice message! This study will take **approximately 15 minutes** to complete. You will earn a **reward of $3.00 for completing the survey**.

In the rest of this study,

- You will listen to a 4-minute recording containing **opinions about two different topics**. **This recording can be played only once.**
- We ask that you **do not take notes** during the recording, and just listen.
- After the recording, you will then be asked to record **two separate voice messages** that **transmit the content and meaning of the two opinions** you just listened to. Note that, each time, **you can only record yourself once.**
- After you click submit on a recording, it can take a little while to upload. We kindly ask you to be patient. The upload typically takes no more than 1 minute at most.

Implicit Incentives Version



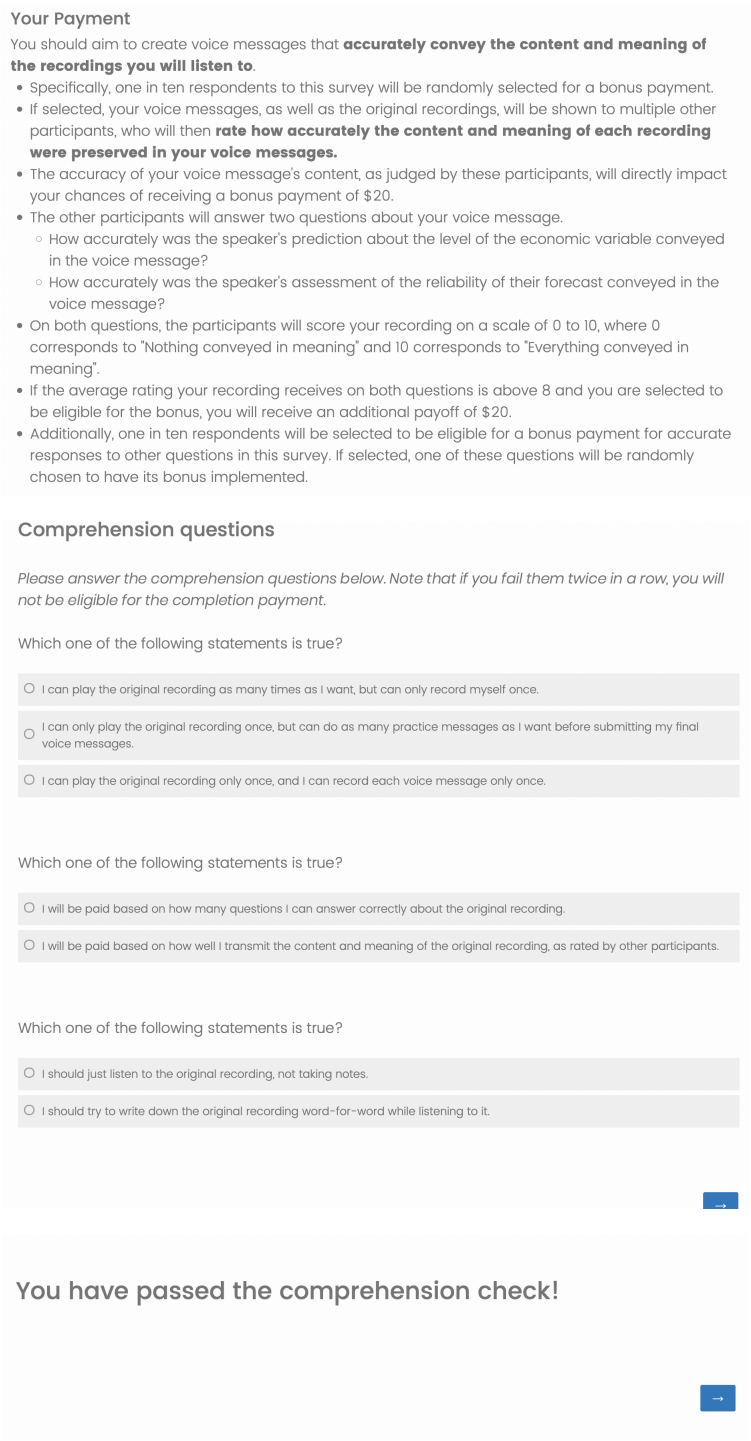
Your Payment

You should aim to create voice messages that **accurately convey the content and meaning of the recordings you will listen to**.

- Specifically, one in ten respondents to this survey will be randomly selected for a bonus payment.
- If selected, your voice messages, as well as the original recordings, will be shown to multiple other participants, who will then **rate how accurately the content and meaning of each recording were preserved in your voice messages.**
- The accuracy of your voice message's content, as judged by these participants, will directly impact your chances of receiving a bonus payment of $20.
- The other participants will answer the following question about your voice message.
  - How accurately did the voice message convey the content and meaning of what the speaker said?
- The participants will score your recording on a scale of 0 to 10, where 0 corresponds to "Nothing conveyed in meaning" and 10 corresponds to "Everything conveyed in meaning".
- If the average rating your recording receives on this question is above 8 and you are selected to be eligible for the bonus, you will receive an additional payoff of $20.
- Additionally, one in ten respondents will be selected to be eligible for a bonus payment for accurate responses to other questions in this survey. If selected, one of these questions will be randomly chosen to have its bonus implemented.

To complete the study, you will need to read all instructions carefully and *correctly answer the comprehension questions*.

Explicit Incentives Version



Prior Beliefs

Same as in the Accuracy Transmitter Experiment

Original Recordings

The recordings of the two opinions are now playing, back-to-back. Ensure you can hear the voice clearly!

Recording the Voice messages

Your recording on **only the first topic: house price growth**

Think about the **first opinion you listened to**, about changes in house price growth in a large US city. We will now ask you to **record a voice message summarizing this opinion.**

→

When you click onto the next page, **a recording of you will start automatically** and you will have to start talking. You'll click "Stop Recording" when you finish talking. You can only record yourself once.

Your recording should **only be about** the opinion you heard about **changes in house price growth in a large US city,** NOT about the other opinion.

Remember that your bonus payment is determined by other participants' ratings of how accurately you convey the content and meaning of the opinion about house price growth.

→

Your voice message about **the change in house price growth in a large US city.**

The recording of your voice message has started automatically. Please talk into your microphone, and submit once you're done.

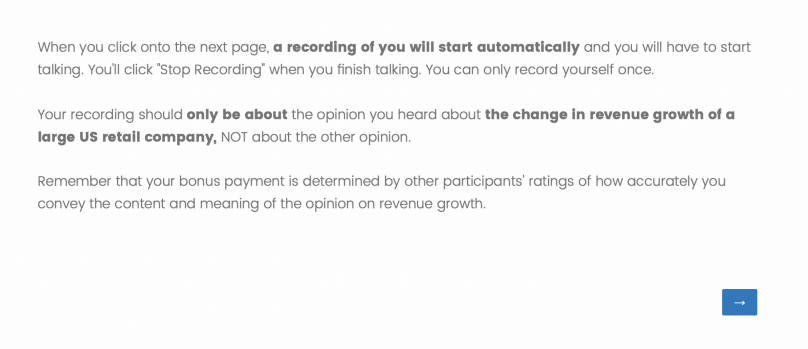
After submitting, it may take a few seconds before the next page appears.

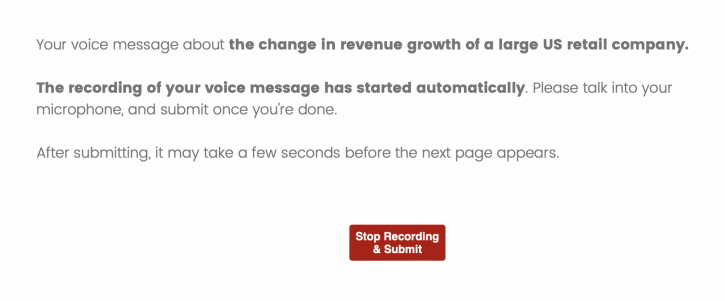
Stop Recording & Submit

Your recording on **only the second topic: change in revenue growth in a retail company**

Think about the **second recording you listened to**, about the change in revenue growth of the large US retail company. We will now ask you to **record a voice message summarizing this opinion.**

→





Own Beliefs

Same as in the Belief Movement Incentives Transmitter Experiment

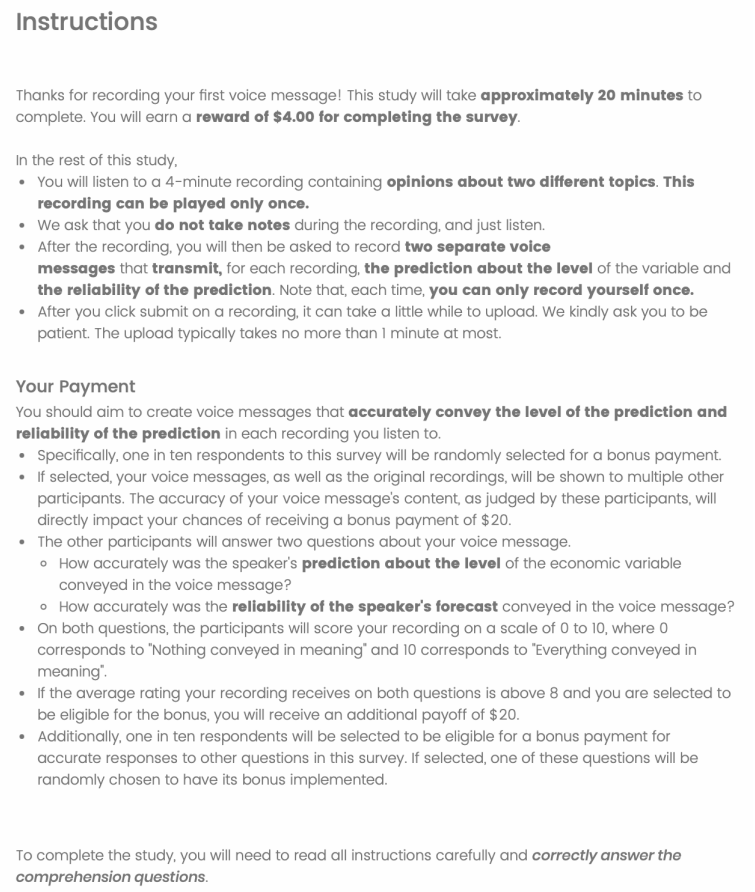
Eliciting Participant Characteristics

Same as in the Belief Movement Incentives Transmitter Experiment

4 Transmitter Experiment: High Salience

Instructions and Microphone Test

Microphone test same as in Accuracy Transmitter Experiment



Instructions

Thanks for recording your first voice message! This study will take **approximately 20 minutes** to complete. You will earn a **reward of $4.00 for completing the survey**.

In the rest of this study,

- You will listen to a 4-minute recording containing **opinions about two different topics**. **This recording can be played only once.**
- We ask that you **do not take notes** during the recording, and just listen.
- After the recording, you will then be asked to record **two separate voice messages** that **transmit,** for each recording, **the prediction about the level** of the variable and **the reliability of the prediction**. Note that, each time, **you can only record yourself once.**
- After you click submit on a recording, it can take a little while to upload. We kindly ask you to be patient. The upload typically takes no more than 1 minute at most.

Your Payment

You should aim to create voice messages that **accurately convey the level of the prediction and reliability of the prediction** in each recording you listen to.

- Specifically, one in ten respondents to this survey will be randomly selected for a bonus payment.
- If selected, your voice messages, as well as the original recordings, will be shown to multiple other participants. The accuracy of your voice message's content, as judged by these participants, will directly impact your chances of receiving a bonus payment of $20.
- The other participants will answer two questions about your voice message.
  - How accurately was the speaker's **prediction about the level** of the economic variable conveyed in the voice message?
  - How accurately was the **reliability of the speaker's forecast** conveyed in the voice message?
- On both questions, the participants will score your recording on a scale of 0 to 10, where 0 corresponds to "Nothing conveyed in meaning" and 10 corresponds to "Everything conveyed in meaning".
- If the average rating your recording receives on both questions is above 8 and you are selected to be eligible for the bonus, you will receive an additional payoff of $20.
- Additionally, one in ten respondents will be selected to be eligible for a bonus payment for accurate responses to other questions in this survey. If selected, one of these questions will be randomly chosen to have its bonus implemented.

To complete the study, you will need to read all instructions carefully and ***correctly answer the comprehension questions***.

Comprehension questions

Please answer the comprehension questions below. Note that if you fail them twice in a row, you will not be eligible for the completion payment.

Which one of the following statements is true?

- ○ I can play the original recording as many times as I want, but can only record myself once.
- ○ I can only play the original recording once, but can do as many practice messages as I want before submitting my final voice messages.
- ○ I can play the original recording only once, and I can record each voice message only once.

Which one of the following statements is true?

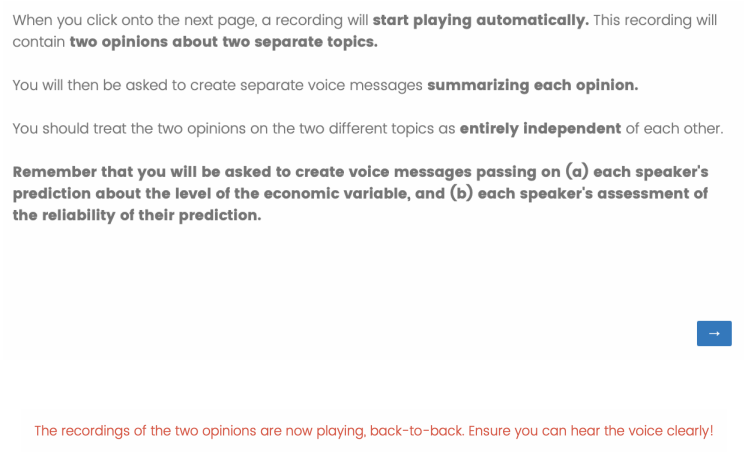
- ○ I will be paid based on how well I transmit the speaker's prediction about the level of the economic variable, and the reliability of the speaker's forecast.
- ○ I will be paid based on how well I transmit the speaker's prediction about the level of the economic variable.
- ○ I will be paid based on how well I transmit the speaker's assessment of the reliability of the forecast.

Which one of the following statements is true?

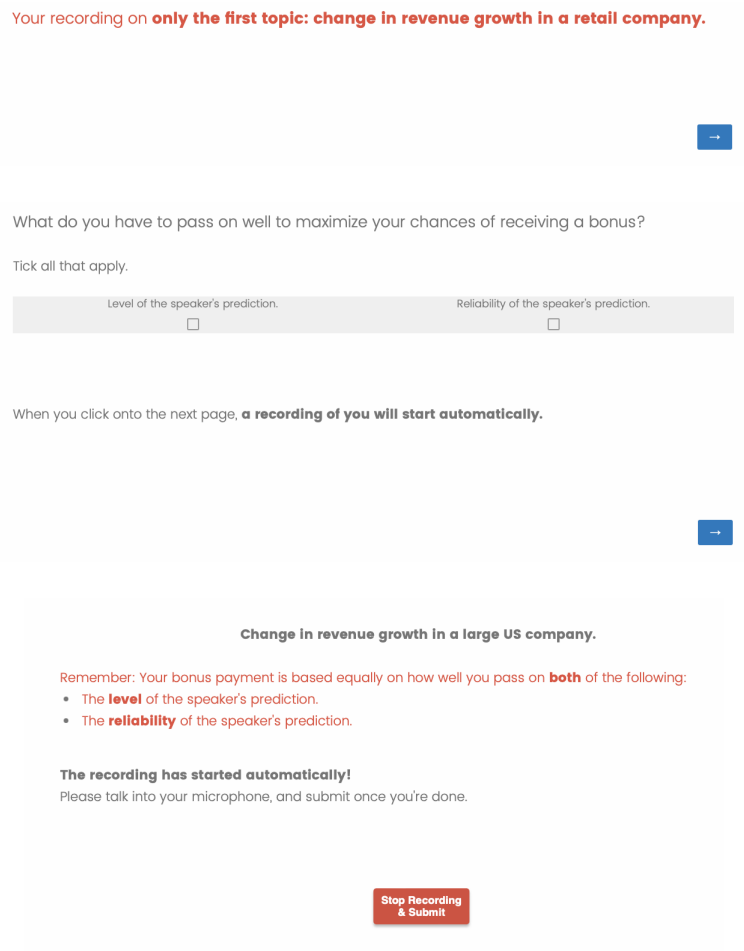
- ○ I should just listen to the original recording, not taking notes.
- ○ I should try to write down the original recording word-for-word while listening to it.

→

Original Recordings



Record Voice Messages



Your recording on **only the second topic: house price growth**

→

What do you have to pass on well to maximize your chances of receiving a bonus?

Tick all that apply.

Level of the speaker's prediction.	Reliability of the speaker's prediction.
☐	☐

When you click onto the next page, **a recording of you will start automatically.**

→

Change in house price growth in a large US city.

Remember: Your bonus payment is based equally on how well you pass on **both** of the following:

- The **level** of the speaker's prediction.
- The **reliability** of the speaker's prediction.

The recording has started automatically!
Please talk into your microphone, and submit once you're done.

Stop Recording & Submit

In your voice recording, did you include information about the speaker's **prediction of the level** of house price growth over the next 12 months?

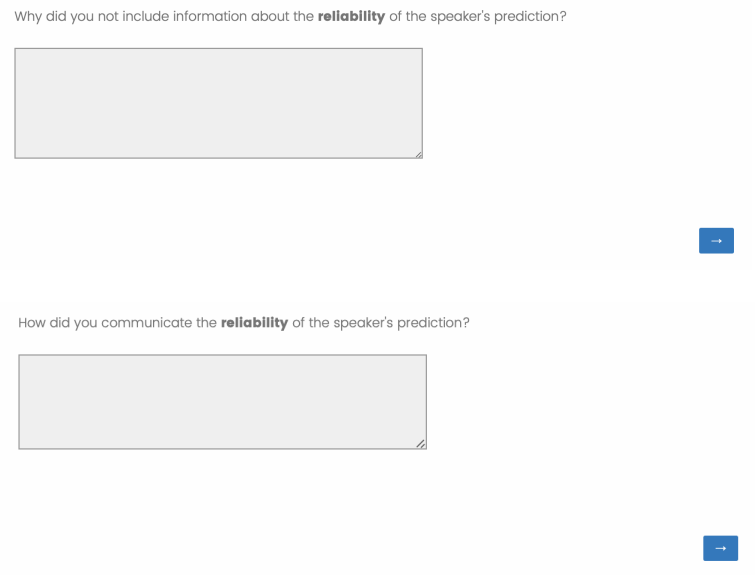
- ○ Yes
- ○ No

In your voice recording, did you include information about the **reliability** of the speaker's prediction?

- ○ Yes
- ○ No

→

Based on the answer given on the previous screen:



Own Beliefs

Cognitive Uncertainty Slider Appears After a Person Enters a Number in the Box

How do you think house price growth in this city will change over the next 12 months?

Please express your answer as a percentage, with negative numbers indicating a decrease in house price growth, positive numbers indicating an increase in house price growth, and zero indicating no change in house price growth.

Note that year-on-year changes in house price growth in this city are almost always between -15% and +15%. In the absence of additional specific information, it is often the best strategy to predict that the growth level next year will be the same as last year's growth level (i.e., a change of 0%).

0 %

Bonus payment: The above decision counts for real money! The closer your guess is to what the actual change in house price growth in this city over the next 12 months will be, the higher the likelihood of you receiving a bonus payment of $20, if you are selected to be eligible for the bonus. This means: Give your best possible estimate. For more details click here

How certain are you that the optimal answer is actually somewhere between **-1** and **1 %**?

Very uncertain 25 50 75 **Completely certain** 100

Now think about **the person whose opinion about house price growth you learned about.**

How do you think this person predicts house price growth in this city will change over the next 12 months?

0 %

How certain are you that the optimal answer is actually somewhere between **-1** and **1 %**?

Very uncertain 25 50 75 **Completely certain** 100

How reliable do you think this person's prediction is?

Specifically, what do you think is **the probability** that this person's forecasts about changes in house price growth in this city **are roughly correct?** Concretely, assuming that the true change in house price growth is a number called X, what do you think is the likelihood that this person's prediction will fall within 1% of X, i.e. between X-1% and X+1%?

Extremely unreliable 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100% Extremely reliable

→

How certain are you that the optimal answer to the previous question is actually somewhere between 66 and 76?

Very uncertain — Completely certain

0 25 50 75 100

50

Next

→

Think about the **second recording you listened to**, about changes in revenue growth in a large US company.

→

How do you think revenue growth in this company will change over the next 12 months?

Please express your answer as a percentage, with negative numbers indicating a decrease in revenue growth, positive numbers indicating an increase in revenue growth, and zero indicating no change in revenue growth.

Note that year-on-year changes in revenue growth in this company are almost always between -10% and +10%. In the absence of additional specific information, it is often the best strategy to predict that the growth level next year will be the same as last year's growth level (i.e., a change of 0%).

0 %

Bonus payment: The above decision counts for real money! The closer your guess is to what the actual change in revenue growth in this company over the next 12 months will be, the higher the likelihood of you receiving a bonus payment of $20, if you are selected to be eligible for the bonus. This means: Give your best possible estimate. For more details click here

How certain are you that the optimal answer is actually somewhere between **-1** and **1 %**?

Very uncertain — Completely certain

0 25 50 75 100

Now think about **the person whose opinion about revenue growth you learned about.**

How do you think this person predicts revenue growth in this company will change over the next 12 months?

0 %

How certain are you that the optimal answer is actually somewhere between **-1** and **1 %**?

Very uncertain 25 50 75 **Completely certain** 100

How reliable do you think this person's prediction is?

Specifically, what do you think is **the probability** that this person's forecasts about changes in revenue growth in this company **are roughly correct?** Concretely, assuming that the true change in revenue growth is a number called X, what do you think is the likelihood that this person's prediction will fall within 1% of X, i.e. between X-1% and X+1%?

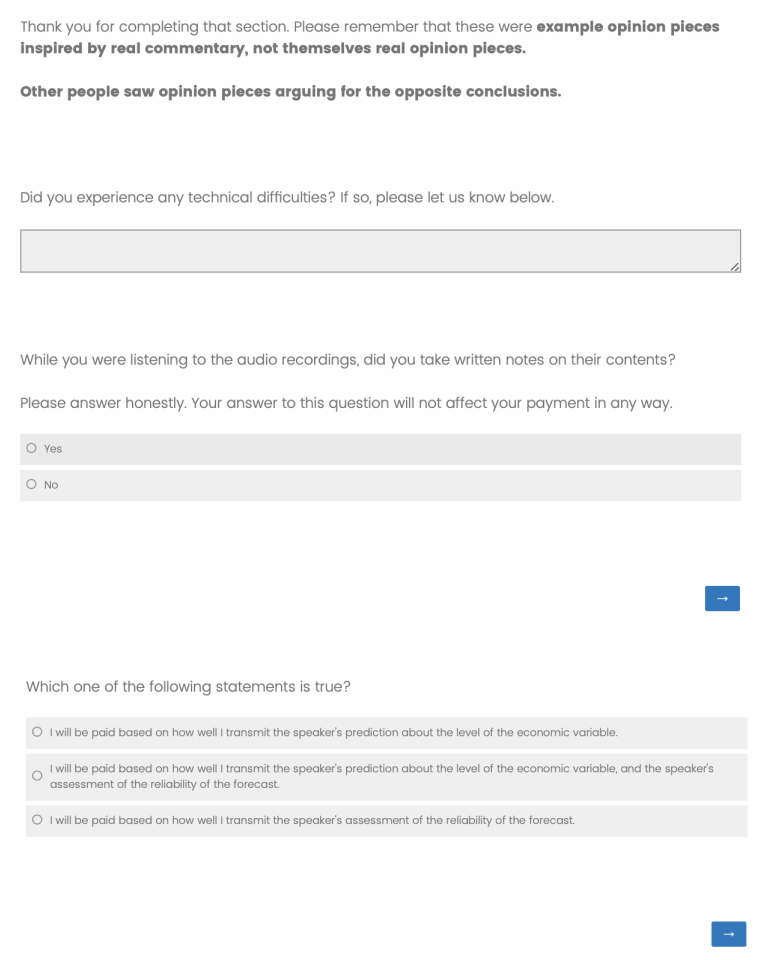
Extremely unreliable 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100% Extremely reliable

→

How certain are you that the optimal answer to the previous question is actually somewhere between 46 and 56?

Very uncertain 25 50 75 **Completely certain** 100

→

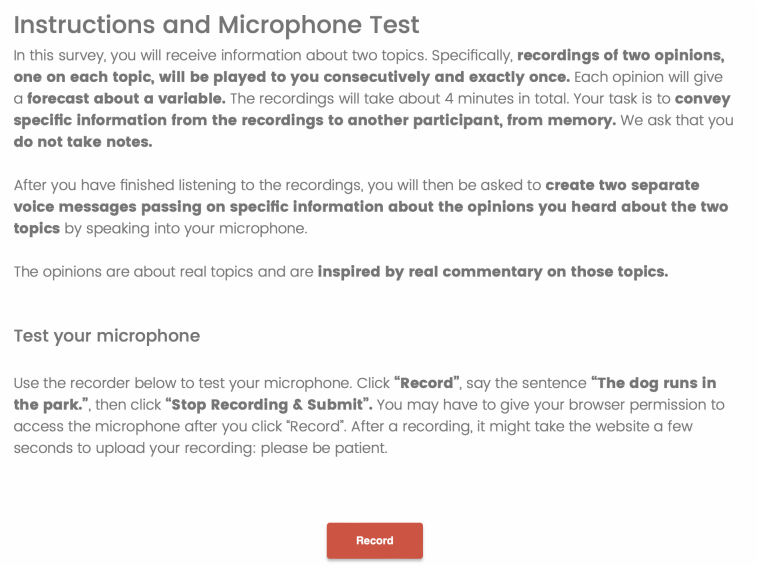


Eliciting Participant Characteristics

Same as the "Final questionnaire" screen in the Accuracy Transmitter Experiment

5 Transmitter Experiment: Choice of Incentives

Instructions



Instructions and Microphone Test

In this survey, you will receive information about two topics. Specifically, **recordings of two opinions, one on each topic, will be played to you consecutively and exactly once.** Each opinion will give a **forecast about a variable.** The recordings will take about 4 minutes in total. Your task is to **convey specific information from the recordings to another participant, from memory.** We ask that you **do not take notes.**

After you have finished listening to the recordings, you will then be asked to **create two separate voice messages passing on specific information about the opinions you heard about the two topics** by speaking into your microphone.

The opinions are about real topics and are **inspired by real commentary on those topics.**

Test your microphone

Use the recorder below to test your microphone. Click **"Record"**, say the sentence **"The dog runs in the park."**, then click **"Stop Recording & Submit".** You may have to give your browser permission to access the microphone after you click "Record". After a recording, it might take the website a few seconds to upload your recording: please be patient.

Record

Instructions

Thanks for recording your first voice message! This study will take **approximately 12 minutes** to complete. You will earn a **reward of $2.50 for completing the survey**.

In the rest of this study,

- You will listen to a 4-minute recording containing **opinions about two different topics**. Each opinion will give a prediction about a variable. **This recording can be played only once.**
- We ask that you **do not take notes** during the recording, and just listen.
- After the recording, you will then be asked to record **two separate voice messages** passing on aspects of the opinions you just listened to. Note that, each time, **you can only record yourself once.**
- After you click submit on a recording, it can take a little while to upload. We kindly ask you to be patient. The upload typically takes no more than 1 minute at most.
- Before listening to the 4-minute recording, you will be able to **choose which specific information you will be asked to transmit.** Your options will be:
  - To use your voice messages to pass on the **prediction about the level of the forecast variable** given in each original recording. The prediction about the level means the speaker's prediction about whether and how much the forecast variable will increase or decrease.
  - To use your voice messages to pass on **the reliability of the prediction** given in each original recording. The reliability of the prediction means how reliable or unreliable the prediction is.

Your Payment

You should aim to create voice messages that **accurately transmit the information you chose to focus on** (either the prediction of the level in the original messages or the reliability of those predictions).

- Specifically, several other respondents will listen to both the original recording and your voice message, and then answer the following question:
  - *How accurately was [the level of the prediction in the original message/the reliability of the prediction in the original message] conveyed in this voice recording? Answer on a scale of 0 to 10.*
- The likelihood of you receiving a bonus payment of $20 depends on how highly the evaluators score your recording on this question, using a scale of 0 to 10, where 0 corresponds to "Not conveyed at all" and 10 corresponds to "Conveyed with perfect accuracy."
- If the average rating your recording receives is above 8 and you are selected to be eligible for the bonus, you will receive an additional payoff of $20.

To complete the study, you will need to read all instructions carefully and *correctly answer the comprehension questions*.

Comprehension questions

Please answer the comprehension questions below. Note that if you fail them twice in a row, you will not be eligible for the completion payment.

Which one of the following statements is true?

- ○ I can play the original recording as many times as I want, but can only record myself once.
- ○ I can only play the original recording once, but can do as many practice messages as I want before submitting my final voice messages.
- ○ I can play the original recording only once, and I can record each voice message only once.

Which one of the following statements is true?

- ○ I should aim to create entertaining summaries of the original recordings
- ○ I will be able to choose whether to pass on the Prediction or Reliability of the recordings, and should exclusively pass on the specific information chosen
- ○ I should aim to pass on all information in the recordings, rather than focusing on any specific piece of information

Which one of the following statements is true?

- ○ I should just listen to the original recording, not taking notes.
- ○ I should try to write down the original recording word-for-word while listening to it.

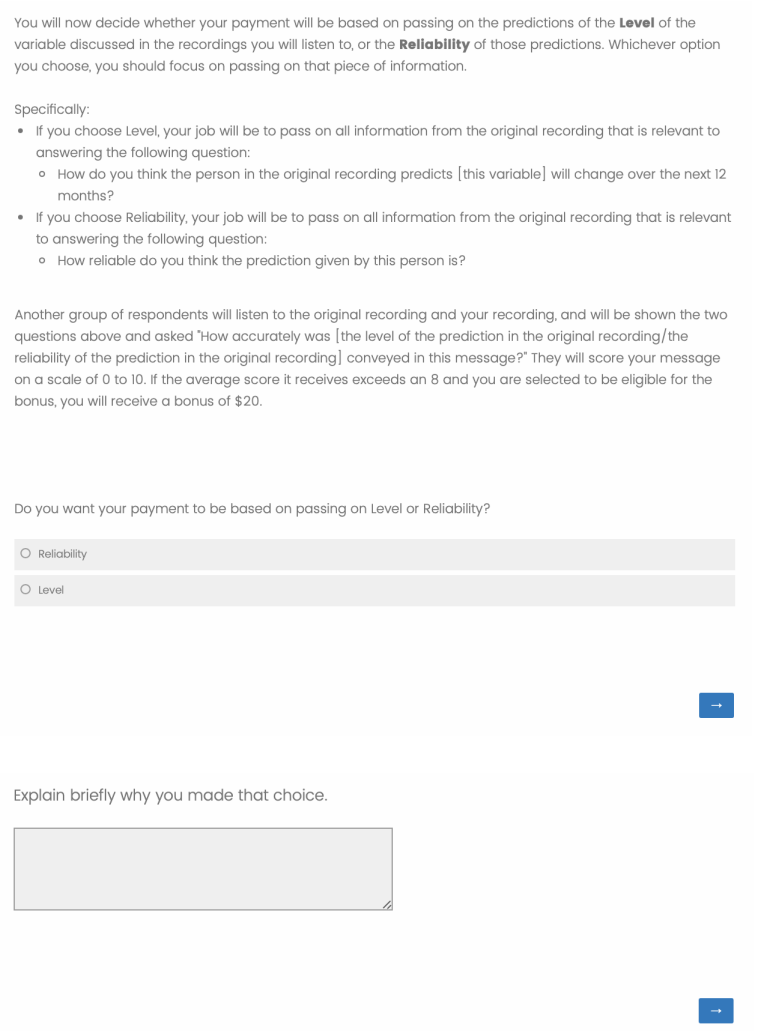
If you choose to pass on information about reliability, which of the following will be true?

- ○ I will be paid based on how well I pass on information about whether the original prediction was reliable or unreliable.
- ○ I will be paid based on how well I pass on information about what the original prediction says about the variable increasing or decreasing.

If you choose to pass on information about the level of the prediction, which of the following will be true?

- ○ I will be paid based on how well I pass on information about what the original prediction says about the variable increasing or decreasing.
- ○ I will be paid based on how well I pass on information about whether the original prediction was reliable or unreliable.

Choosing Reliability or Level Information


You will now decide whether your payment will be based on passing on the predictions of the **Level** of the variable discussed in the recordings you will listen to, or the **Reliability** of those predictions. Whichever option you choose, you should focus on passing on that piece of information.

Specifically:

- If you choose Level, your job will be to pass on all information from the original recording that is relevant to answering the following question:
  - How do you think the person in the original recording predicts [this variable] will change over the next 12 months?
- If you choose Reliability, your job will be to pass on all information from the original recording that is relevant to answering the following question:
  - How reliable do you think the prediction given by this person is?

Another group of respondents will listen to the original recording and your recording, and will be shown the two questions above and asked "How accurately was [the level of the prediction in the original recording/the reliability of the prediction in the original recording] conveyed in this message?" They will score your message on a scale of 0 to 10. If the average score it receives exceeds an 8 and you are selected to be eligible for the bonus, you will receive a bonus of $20.

Do you want your payment to be based on passing on Level or Reliability?

○ Reliability

○ Level

→

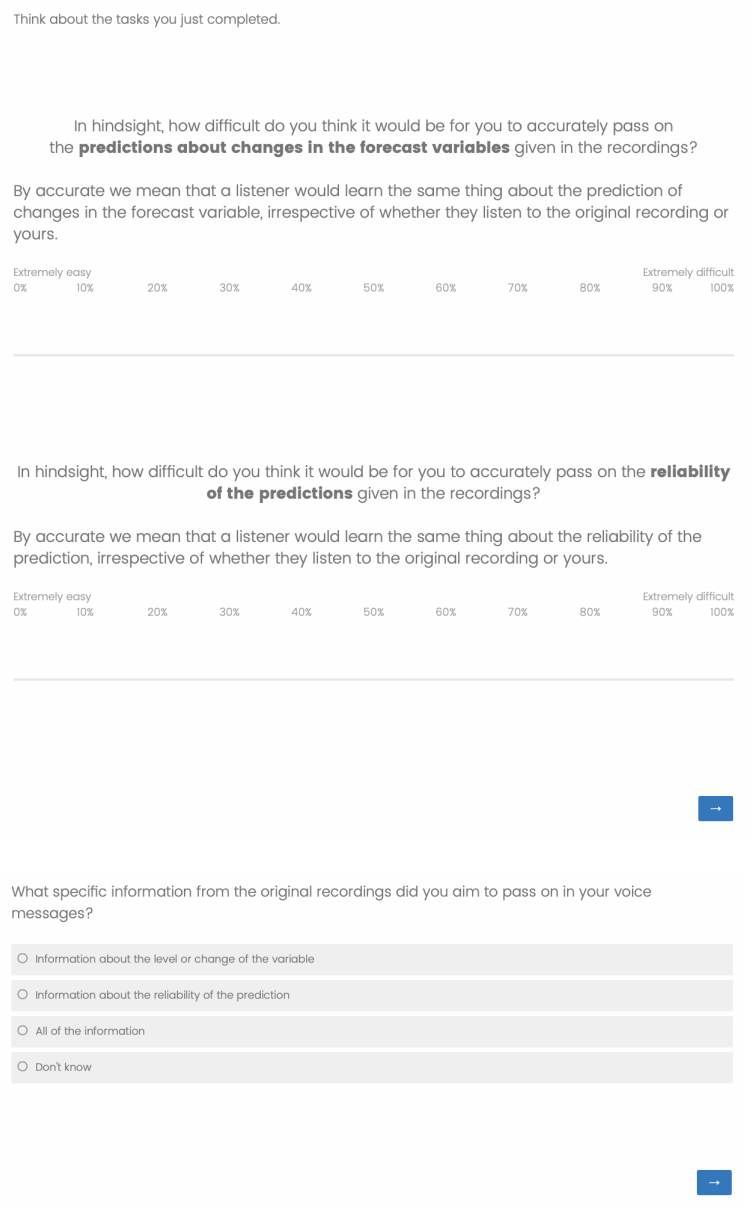
Explain briefly why you made that choice.

→

Main Experiment

Same as in Accuracy Transmitter Experiment

Reassessing the Initial Task

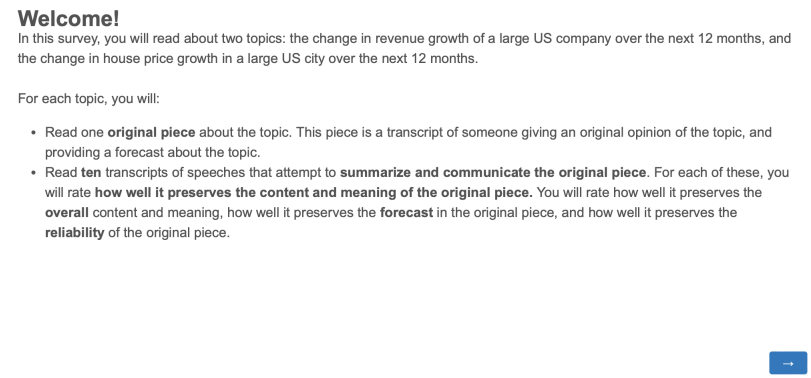


Eliciting Participant Characteristics

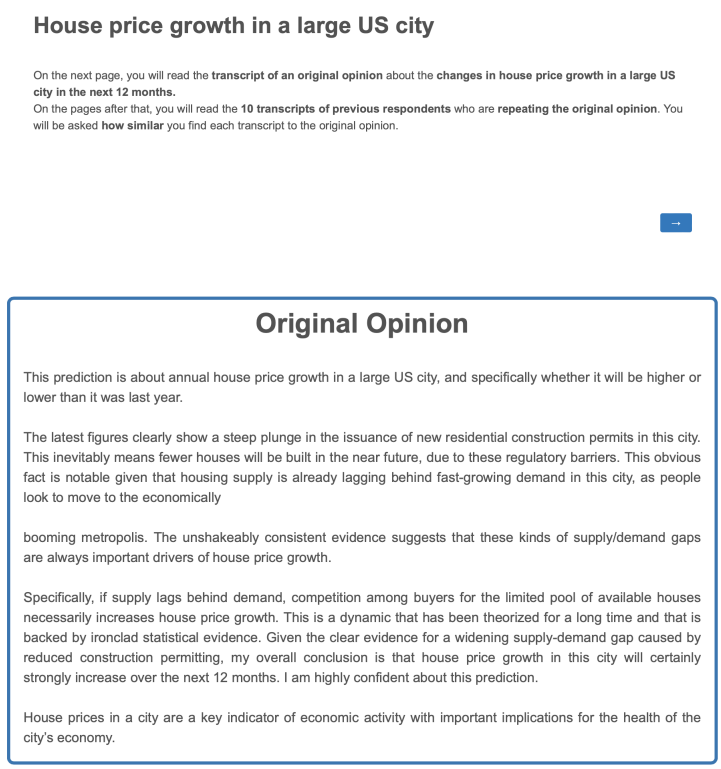
Same as in the Accuracy Listener Experiment

6 Evaluator Experiment: Transmission Accuracy Assessment

Instructions



Main experiment



House price growth in a large US city - Transcript 1/10

On the next page, you will read a new transcript **of a previous respondents** who is **repeating the original opinion**. You will be asked **how similar** you find this transcript to the original opinion.

→

Transmitted Opinion

So the changes in the house price growth in the large U city. Well to start off with based on the recording that listen to he, the person predicted that the house price growth is going to decrease as the demand for raising houses has increased. Based on the number of people moving into cities as you mentioned or their houses are already built in uh decreases. The land availability for raising houses means that the demand for housing is very low in comparison to how it was the previous years. As such the price for house, the house price growth is going to decrease that you mentioned. Mm Sorry about that. Can't remember what else was said. The other stated that due to inflation, several of the supplies, the construction items used for the housing is gonna increase. So does help lower as for growth as what's more if the prices for the supplies, the very mature for housing increases than the demand and mentioned incentive for making houses decreases as well. Oh, it's poor. So is off the person who recorded his opinion said that he was very confident in it that he too believed that the house price growth will decrease as you as the snake here comes in.

click here to show original script again for comparison

On a scale from 0 to 10, how accurately did this piece convey the content and meaning of the original piece?

Extremely inaccurate 0 1 2 3 4 5 6 7 8 9 10 Extremely accurate

On a scale from 0 to 10, how accurately was the level of the prediction about the economic variable in the original piece conveyed in this piece?

Extremely inaccurate 0 1 2 3 4 5 6 7 8 9 10 Extremely accurate

On a scale from 0 to 10, how accurately was original piece's assessment of the reliability of the prediction conveyed in this piece?

Extremely inaccurate 0 1 2 3 4 5 6 7 8 9 10 Extremely accurate

→

Same structure for the remaining nine transcribed statements

Revenue growth of a large US company

On the next page, you will read the **transcript of an original opinion** about the **revenue growth of a large US company in the next 12 months.**
On the pages after that, you will read the **10 transcripts of previous respondents** who are **repeating the original opinion**. You will be asked **how similar** you find each transcript to the original opinion.

→

Original Opinion

This prediction is about the annual revenue growth of a large US retail company, and specifically whether it will be higher or lower than it was last year.

Economic forecasts suggest with near certainty that we are inevitably due for a downturn in consumer spending. Persistent inflation, which will certainly remain elevated for the foreseeable future, has eaten into consumers' savings. Inflation both raises prices and reduces the real value of existing savings. Meanwhile, higher interest rates have have clearly raised general borrowing costs, which are definitely further constraining consumers' purchasing power. Overall, the economic outlook for consumers is unequivocally negative.

The combination of these factors will obviously lead to cuts in nonessential spending. This, in turn, will by necessity reduce the revenue flowing into this company, because while some purchases at retail stores are essential, it is perfectly well-known that most reflect non-essential spending. This is precisely the type of spending that will undoubtedly fall as consumers change their behavior. Overall, I am confident this means that the revenue growth of this company will definitely fall strongly over the forthcoming year. I am highly confident about this forecast.

This chain is one of the biggest employers and providers of consumer goods in the US, so it is important to understand how its performance will evolve over the next year.

Revenue growth of a large US company - Transcript 1/10

On the next page, you will read a new transcript **of a previous respondents** who is **repeating the original opinion**. You will be asked **how similar** you find this transcript to the original opinion.

→

Transmitted Opinion

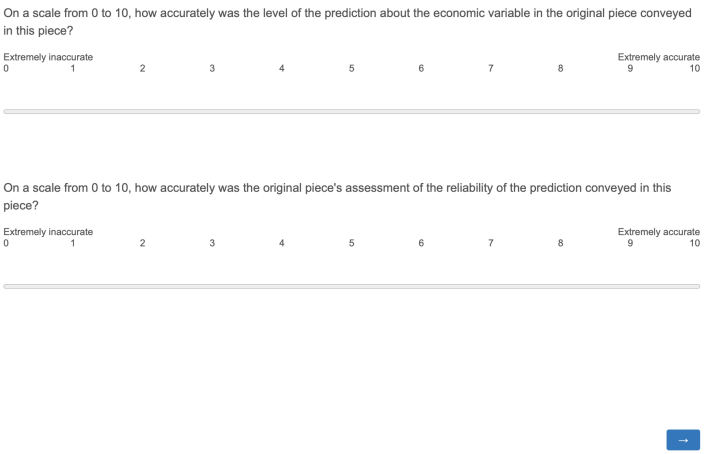
A large US retail company may will probably have a decrease in revenue and many retail purchases are a more unnecessary and inflation is causing people to have way less savings now and the prices of everything to go up. So people are cutting spending on non-essential items such as what is available at this large US retail company, which is a huge employer in the area. But um it's interest rates are higher. Prices are higher. People are reluctant to spend more and are cutting back. Um The opinion is very strong that revenue growth is going to decline at this large US retail company and that is due to inflation which is not forecasted to end any time soon.

click here to show original script again for comparison

On a scale from 0 to 10, how accurately did this piece convey the content and meaning of the original piece?

Extremely inaccurate — Extremely accurate

0 1 2 3 4 5 6 7 8 9 10



Same structure for the remaining nine transcribed statements

7 Transmitter Experiment: Belief Distribution Incentives

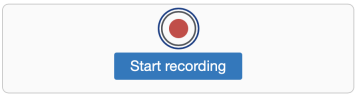
Instructions

Instructions and Microphone Test

In this survey, you will receive information about two topics. Specifically, **recordings of two opinions, one on each topic, will be played to you consecutively and exactly once.** Each opinion will give a **forecast about a variable.** The recordings will take about 4 minutes in total. Your task is to **convey the information content of the recordings to another participant, from memory, according to a specific set of instructions on the next page.** We ask that you **do not take notes.**

Test your microphone

Use the recorder below to test your microphone. First **click "Grant microphone access"** and allow Qualtrics to access your microphone. Click **"Record"**, say the sentence **"The dog runs in the park."**, then click **"Stop Recording & Submit".** You may have to give your browser permission to access the microphone after you click "Record". After a recording, it might take the website a few seconds to upload your recording: please be patient.



Instructions

Thanks for recording your first voice message! This study will take **approximately 20 minutes** to complete. You will earn a **reward of $4.00 for completing the survey**.

In the rest of this study,

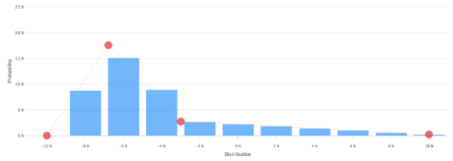
- You will listen to a 4-minute recording containing **opinions about two different topics**. **This recording can be played only once.**
- One topic is the revenue growth of a specific US company and the other topic is the home price growth in a specific US city. The opinions and questions about a real company and a real city, but you won't be told which company and which city they refer to. The opinions are **inspired by real commentary** on the company and city, respectively.
- We ask that you **do not take notes** during the recording, and just listen.
- After the recording, you will then be asked to record **two separate voice messages,** one for each of the two opinions you just listened to. Note that, each time, **you can only record yourself once.**
- After you click submit on a recording, it can take a little while to upload. We kindly ask you to be patient. The upload typically takes no more than 1 minute at most.

Your Payment

You should aim to create voice messages that **accurately convey the information content of the recordings you will listen to**.

What do we mean by information content? We mean anything in the message that **affects how people who listen to the message change what they expect about the economic variable that's discussed.** Please read the following carefully.

- In a separate survey, participants will listen to the original message and then (both before and after listening to it) be asked to express their beliefs about how the described economic variable might turn out. To do this, they will use an interactive interface that shows a range of possible outcomes divided into "buckets." Each bucket corresponds to a possible range for the variable.
- Those participants will assign probabilities to these buckets to indicate how likely they think each outcome is. In other words, they will "spread" 100 percentage points across the different buckets according to their subjective beliefs. The resulting distribution reflects their full probability forecast—for instance, a belief that a decrease in house price growth is unlikely, no change is most likely, and an increase in house price growth is possible but less so. See below for an example



- Your job is to record a message that causes people to change the way they assign probabilities to these buckets in a way that's as close as possible to the way the original message causes them to change the way they assign probabilities. In order to do this, you should pass on anything from the original message that you think would be relevant for how people change their beliefs about the likely scenarios for how the economic variable will turn out.
- Specifically, one in ten respondents to this survey will be randomly selected to be eligible for a bonus payment of $20.
- If selected, your voice message will be played to some other participants, and we will measure their belief changes after hearing your voice message.
- Your percentage likelihood of receiving a bonus payment will be 100-5*(average change in probability assigned to bucket 1 based on your message, in percent - average change in probability assigned to bucket 1 induced by the original message, in percent)^2+(average change in probability assigned to bucket 2 based on your message, in percent - change in probability assigned to bucket 2 induced by the original message, in percent)^2+..., and so on.
- While this formula might look complicated, what it means is simple: you should try to accurately convey the full information content of the messages you listen to, where "information content" is anything that's relevant to the full distribution of people's beliefs.
- Additionally, one in ten respondents will be selected to be eligible for a bonus payment for accurate responses to other questions in this survey. If selected, one of these questions will be randomly chosen to have its bonus implemented.

Comprehension questions

Please answer the comprehension questions below. Note that if you fail them twice in a row, you will not be eligible for the completion payment.

Which one of the following statements is true?

To maximize my earnings, I should imitate the original message, but in a different accent or voice.

To maximize my earnings, I should pass on all information from the original message that I think will influence how people change their beliefs.

To maximize my earnings, I should describe the general topic of the original message without being specific about the contents of the message.

Which one of the following statements is true?

I can only play the original recording once, but can do as many practice messages as I want before submitting my final voice messages.

I can play the original recording as many times as I want, but can only record myself once.

I can play the original recording only once, and I can record each voice message only once.

Which one of the following statements is true?

I will be paid based on how many questions I can answer correctly about the original recording.

I will be paid based on how close the change in average likelihoods assigned to different outcomes based on listening to my recording are to the change average likelihoods assigned based on the original recording.

I will be paid based on how similar other respondents say my recording is to the original recording.

Which one of the following statements is true?

I should try to write down the original recording word-for-word while listening to it.

I should just listen to the original recording, not taking notes.

→

Prior beliefs

Revenue growth in a large US company

One of the recordings you will listen to is about whether revenue growth in a large US company over the next year will be **higher** or **lower** than last year's revenue growth.

Note that year-on-year changes in revenue growth in this company are almost always between -10% and +10%. In the absence of additional specific information, it is often the best strategy to predict that the growth level next year will be the same as last year's growth level (i.e., a change of 0%).

Given the information you have received above and before listening to the recordings, how do you think revenue growth in this company will change over the next 12 months?

Please express your answer as a percentage, with negative numbers indicating a decrease in revenue growth, positive numbers indicating an increase in revenue growth, and zero indicating no change in revenue growth.

[ ] %

→

House price growth in a large US city

One of the recordings you will listen to is about whether house price growth in a large US city over the next year will be **higher** or **lower** than last year's house price growth.

Note that year-on-year changes in house price growth in this city are almost always between -15% and +15%. In the absence of additional specific information, it is often the best strategy to predict that the growth level next year will be the same as last year's growth level (i.e., a change of 0%).

Given the information you have received above and before listening to the recordings, how do you think house price growth in this city will change over the next 12 months?

Please express your answer **as a percentage**, with negative numbers indicating lower house price growth, positive numbers indicating higher house price growth, and zero indicating no change in the house price growth rate.

[ ] %

→

Original recordings

When you click onto the next page, a recording will **start playing automatically.** This recording will contain **two opinions about two separate topics.**

You should treat the two opinions on the two different topics as **entirely independent** of each other.

You will then be asked to create separate voice messages about each opinion.

→

The recordings of the two opinions are now playing, back-to-back. Ensure you can hear the voice clearly!

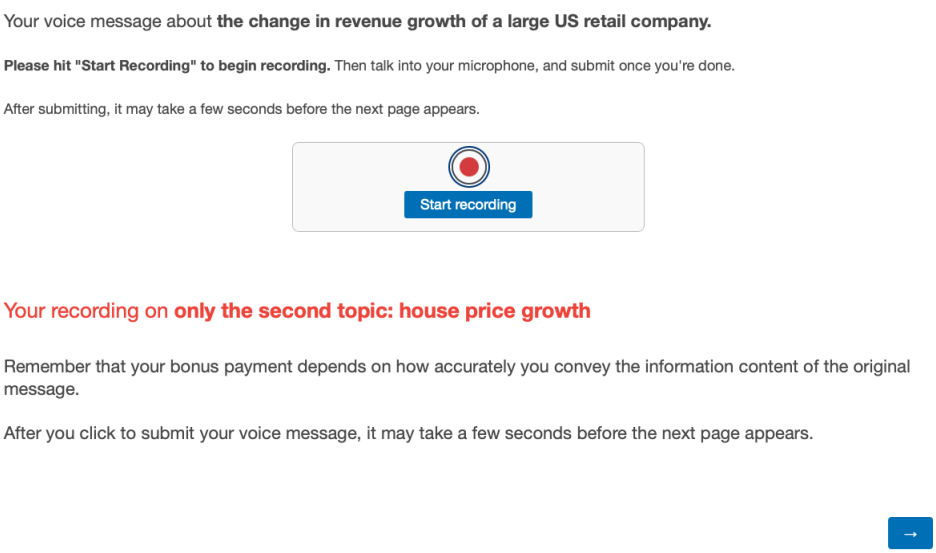
Record voice messages

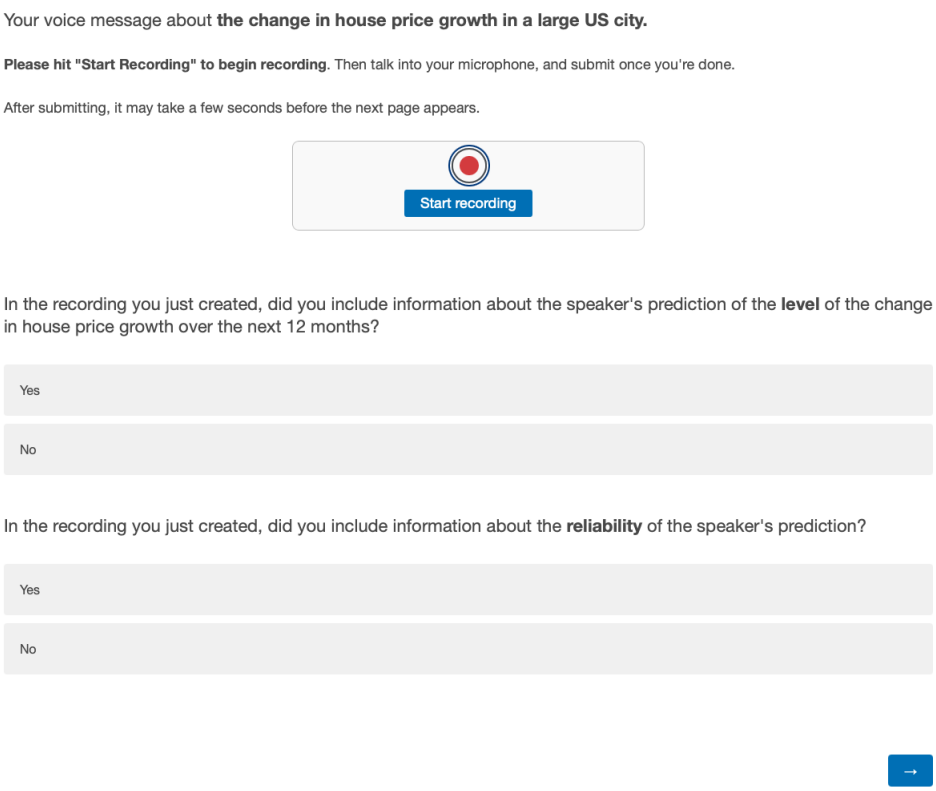
Your recording on **only the first topic: change in revenue growth in a retail company**

Remember that your bonus payment depends on how accurately you convey the information content of the original message.

After you click to submit your voice message, it may take a few seconds before the next page appears.

→





Interface introduction

We will now ask you a couple of questions that use **the interface below.** This page explains how the interface works and what it means.

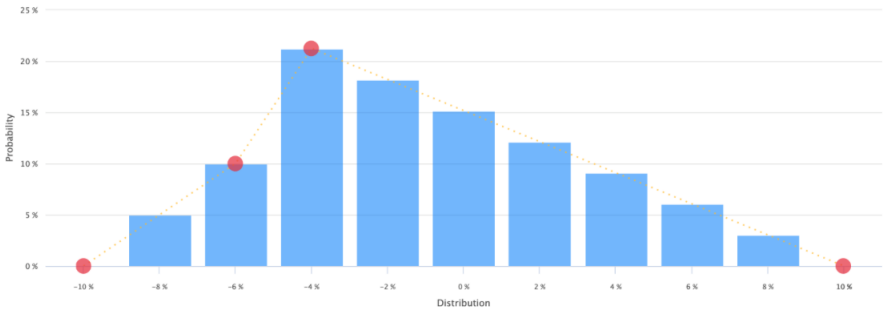
The numbers on the horizontal axis represent different possibilities for how an outcome (such as home price growth or revenue growth) will change. For example, "2%" means this variable will increase by 2%; "-4%" means it will decrease by 4%.

Clicking and dragging the dots creates bars above these numbers. The height of the bar above an outcome indicates how **likely** you think this outcome is. For example, a bar of height 45% above the "2%" number indicates you think there is a 45% chance that the variable will increase by 2%.

By dragging the dots around, you can indicate the likelihoods you assign to different outcomes. For example, if you think that there is a 30% chance that the variable will increase by 6% and a 70% chance it will increase by 8%, you should create a bar of height 30% above 6% and a bar of height 70% above 8%.

Clicking "normalize" will make it so that the heights of the bars add up to a probability of 100%. We will automatically normalize your answers when you submit them.

In the example below, what probability is assigned to the possibility that the outcome will **decrease by 6%?**



10%

20%

70%

→

Own beliefs

Think about the **first recording you listened to**, about the change in revenue growth of the large US retail company.

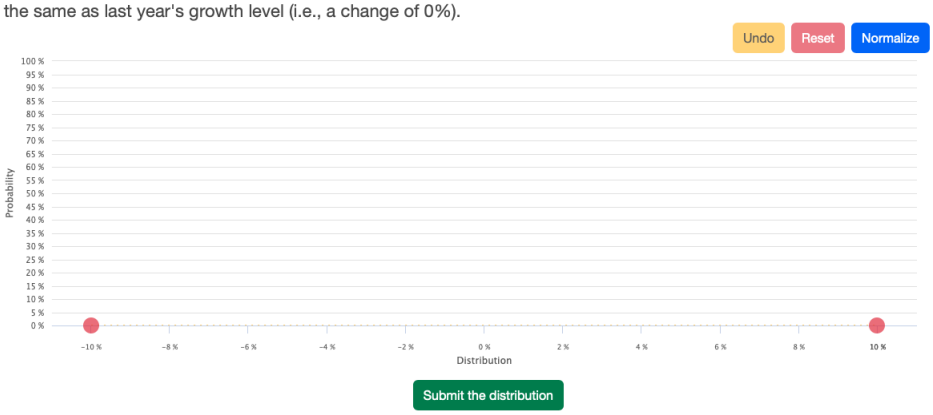
→

Predict using the interface: How do you think the revenue growth of this company will change over the next 12 months?

In the interface below, the numbers on the horizontal axis represent percent changes in revenue growth, with negative numbers indicating a decrease in revenue growth, positive numbers indicating an increase in revenue growth, and zero indicating no change in revenue growth.

The height of the bars as you click and drag indicates how **likely** you think each percentage change in revenue growth is. The higher the bar, the more likely you think it is that revenue growth will change by this much.

Note that year-on-year changes in revenue growth for this retailer are almost always between -10% and +10%. In the absence of additional specific information, it is often the best strategy to predict that the growth level next year will be the same as last year's growth level (i.e., a change of 0%).



Now think about **the person whose opinion about revenue growth you learned about.**

How do you think **this person predicts** revenue growth in this company will change over the next 12 months?

[ ] %

→

How **reliable** do you think this person's prediction is?

Specifically, what do you think is **the probability** that this person's forecasts about changes in this company's revenue growth **are roughly correct?** Concretely, assuming that the true change in revenue growth is a number called X, what do you think is the likelihood that this person's prediction will fall within 1% of X, i.e. between X-1% and X+1%?

Extremely unreliable — Extremely reliable

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

→

Think about the **second recording you listened to**, about changes in house price growth in a large US city.

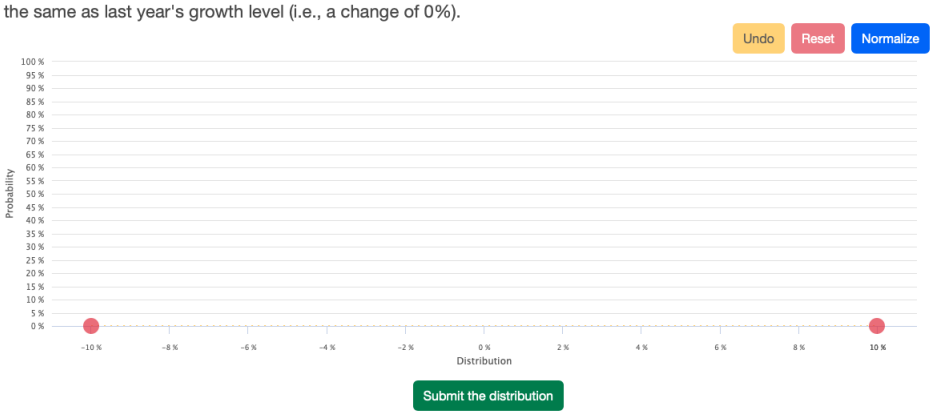
→

Predict using the interface: How do you think house price growth in this city will change over the next 12 months?

In the interface below, the numbers on the horizontal axis represent percent changes in house price growth, with negative numbers indicating a decrease in house price growth, positive numbers indicating an increase in house price growth, and zero indicating no change in house price growth.

The height of the bars as you click and drag indicates how **likely** you think each percentage change in house price growth is. The higher the bar, the more likely you think it is that house price growth will change by this much.

Note that year-on-year changes in house price growth in this city are almost always between -10% and +10%. In the absence of additional specific information, it is often the best strategy to predict that the growth level next year will be the same as last year's growth level (i.e., a change of 0%).



Bonus payment: The above decision counts for real money! The closer your guess is to what the actual change in house price growth in this city over the next 12 months will be, the higher the likelihood of you receiving a bonus payment of $20, if you are selected to be eligible for the bonus. This means: Give your best possible estimate. For more details

click here

Now think about **the person whose opinion about house price growth you learned about.**

How do you think **this person predicts** house price growth in this city will change over the next 12 months?

[ ] %

→

How **reliable** do you think this person's prediction is?

Specifically, what do you think is **the probability** that this person's forecasts about changes in house price growth in this city **are roughly correct?** Concretely, assuming that the true change in house price growth is a number called X, what do you think is the likelihood that this person's prediction will fall within 1% of X, i.e. between X-1% and X+1%?

Extremely unreliable — Extremely reliable

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

→

8 Listener Experiment: Belief Distribution Incentives

Instructions

Thanks for agreeing to participate!

In this survey, you will hear two **1-2 minute voice recordings** about two topics: one about changes in house price growth in a large US city, and one about changes in the revenue growth of a large US retail company.

Each time, the recording will be either

- **an original opinion** about the topic, or
- a **voice message summarizing the original opinion,** recorded by another participant in this study who previously listened to the original opinion.

The voice recording will be played to you exactly once.

The original opinions are are about changes in revenue growth of an actual company and changes in house price growth in a large US city, and are inspired by real commentary on those topics.

Your task is to **answer questions on what you think will happen to the variable that the recording is about** (change in house price growth or change in revenue growth). We will also ask you questions about what you guess **the person who recorded the original opinion thinks** about the variable.

Test your speaker

Use the play button below to test your speaker. Click "Play" to play back a voice message and select the sentence that you heard in the text box below.

Please select the sentence that you listened to in the voice message above:

○ The koala climbs up the tree.	○ The cat waits for the mouse to come back.
○ The dog runs in the park.	○ The fox sneaks through the garden.
○ The lion looks at the gazelle.	○ The turtle swims in the sea.

Instructions

Thanks for listening to your first recording! This study will take **approximately 15 minutes** to complete. You will earn a **reward of $3.00 for completing the survey**.

In the rest of this study, there will be two blocks, covering changes in house price growth in a large US city and changes in revenue growth in a large US company, not necessarily in that order. In each block, the following will happen.

- You will listen to a **short 1-2 minute recording** about a topic. The recording will either be **an original opinion**, or **another participant's summary of that original opinion.** The other participant was paid to pass on any information from the relevant recording that is relevant to how people change their beliefs.
- The recording can be played exactly once.
- Each time, you should pay attention to the recording's **prediction about the level** of the variable being discussed, and the **reliability of that prediction.**
- After listening to the recording, you will be asked several questions relating to **what you think** about the variable discussed in the recording over the next 12 months, and about **what you guess the person giving the original opinion thinks** about the variable.
- In some voice messages you only hear the other person speaking after a small delay, because the speaker may have paused before speaking. Please be patient.

Your Bonus Payment

One of every ten participants is eligible for a **bonus payment** of up to $20. Your likelihood of receiving a bonus payment depends on how **accurately you answer the questions about the variable over the next 12 months and about the expert's opinion**.

If you are selected to be eligible for a bonus payment, one of the questions will be randomly selected and your answer to that randomly-chosen question determines your probability of receiving the bonus. On each question, you will receive information on how the bonus is calculated. Your bonus payment will be made as soon as the true house price growth rate in the city over the next 12 months, and the true revenue growth rate of the company over the next 12 months, has been announced.

Comprehension questions

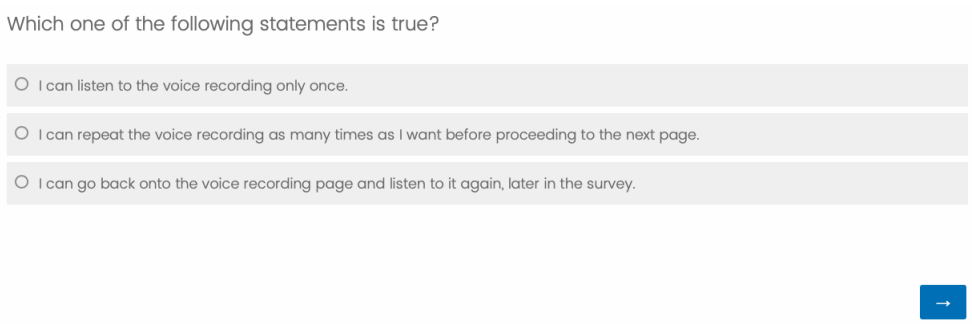
Please answer the comprehension questions below. Note that if you fail them twice in a row, you will not be eligible for the completion payment.

Which one of the following statements is true?

- ○ The recordings will be about a new line of products released by the company conducting this survey.
- ○ The recordings will be about US Federal Reserve interest rate policy over the next year.
- ○ The recordings will be about changes in house price growth in a large city and changes in revenue growth in a large company.

Which one of the following statements is true?

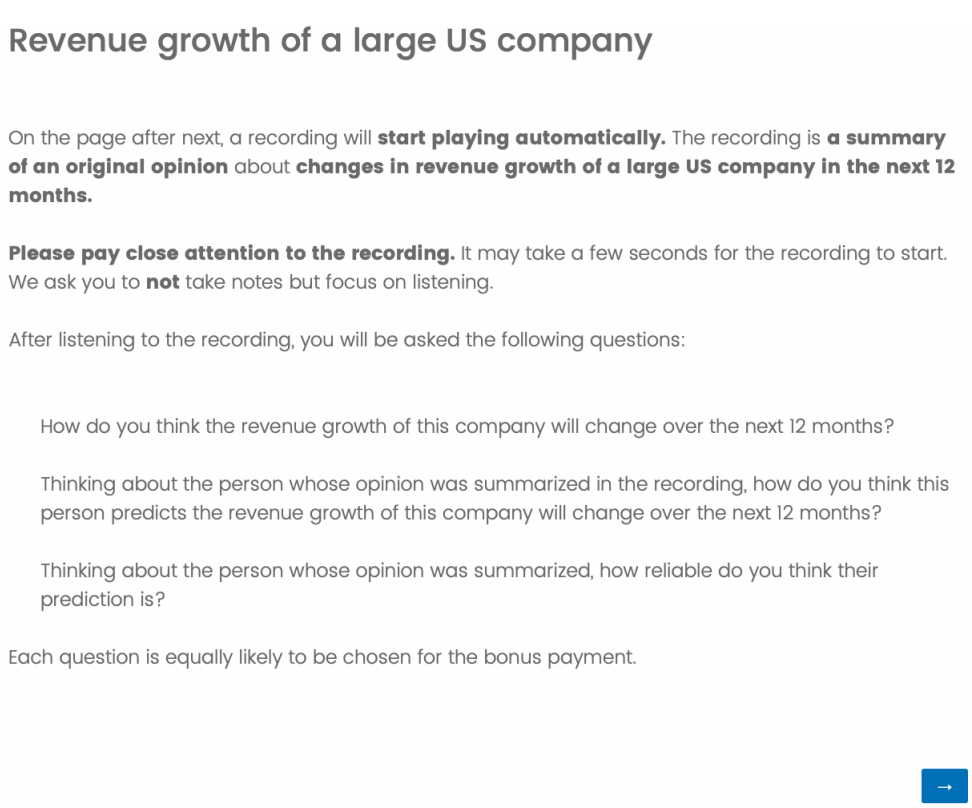
- ○ The voice recording will either be a clip from a live TV broadcast, or a recording of someone reading out loud from a major newspaper.
- ○ The voice recording will either be an original opinion, or a recording of another participant summarizing the original opinion.



Interface introduction

Same as in the Belief Distribution Transmitter Experiment

Block 1 - Revenue growth



Your guess before listening to the recording

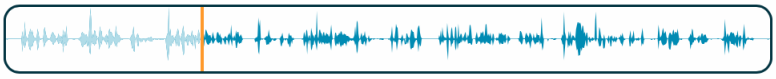
Predict using the interface: How do you think revenue growth in this company will change over the next 12 months?

In the interface below, the numbers on the horizontal axis represent percent changes in revenue growth, with negative numbers indicating a decrease in revenue growth, positive numbers indicating an increase in revenue growth, and zero indicating no change in revenue growth.

The height of the bars as you click and drag indicates how **likely** you think each percentage change in revenue growth is. The higher the bar, the more likely you think it is that revenue growth will change by this much.

Note that year-on-year changes in revenue growth in this city are almost always between -10% and +10%. **In the absence of additional specific information, it is often the best strategy to predict that the growth level next year will be the same as last year's growth level (i.e., a change of 0%).**

On the next page, a recording will start playing automatically.



You just listened to a **summary of an original opinion** about changes in revenue growth in a large US company. The person providing the summary was incentivized to pass on any information from the original opinion that would be relevant for how people change their beliefs.

Please think of your best guess about **how the person whose opinion was summarized predicts revenue growth in this company will change over the next 12 months.**

Note the following questions are **not about the opinion of the person you just listened to**, but about **the opinion of the person they were summarizing.**

→

How do you think **the person whose opinion was summarized in the recording predicts** the company's revenue growth will change over the next 12?

Please express your answer as a percentage, with negative numbers indicating a decrease in revenue growth, positive numbers indicating an increase in revenue growth, and zero indicating no change in revenue growth.

[ ] %

→

How **reliable** do you think the prediction given by the person whose opinion was summarized in the recording is?

Specifically, what do you think is **the probability** that this person's forecasts about the revenue growth of this company are roughly correct? Concretely, assuming that the true change in revenue growth is a number called X, what do you think is the likelihood that this person's prediction will fall within 1% of X, i.e. between X-1% and X+1%?

Extremely unreliable — Extremely reliable

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

→

We will now ask you questions relating to **what you think** about the revenue growth of this company over the next 12 months.

→

How do you think revenue growth in this company will change over the next 12 months?

In the interface below, the numbers on the horizontal axis represent percent changes in revenue growth, with negative numbers indicating a decrease in revenue growth, positive numbers indicating an increase in revenue growth, and zero indicating no change in revenue growth.

The height of the bars as you click and drag indicates how **likely** you think each percentage change in revenue growth is. The higher the bar, the more likely you think it is that revenue growth will change by this much.

Note that year-on-year changes in revenue growth in this city are almost always between -10% and +10%. In the absence of additional specific information, it is often the best strategy to predict that the growth level next year will be the same as last year's growth level (i.e., a change of 0%).

Bonus payment: The above decision counts for real money! The closer your guess is to what the actual change in revenue growth in this company over the next 12 months will be, the higher the likelihood of you receiving a bonus payment of $20, if you are selected to be eligible for the bonus. This means: Give your best possible estimate.

For more details click here

How clear was the audio in the recording?

Not clear at all 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% Extremely clear 100%

→

How easy did you find it to follow the reasoning in the recording?

Not easy at all 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% Extremely easy 100%

→

Block 2 - House price growth

House price growth in a large US city

On the page after next, a recording will **start playing automatically.** The recording is **a summary of an original opinion** about **changes in house price growth in a large US city in the next 12 months.**

Please pay close attention to the recording. It may take a few seconds for the recording to start. We ask you to **not** take notes but focus on listening.

After listening to the recording, you will be asked the following questions:

> How do you think house price growth in this city will change over the next 12 months?
>
> Thinking about the person whose opinion was summarized in the recording, how do you think this person predicts house price growth in this city will change over the next 12 months?
>
> Thinking about the person whose opinion was summarized, how reliable do you think their prediction is?

Each question is equally likely to be chosen for the bonus payment.

→

Your guess before listening to the recording

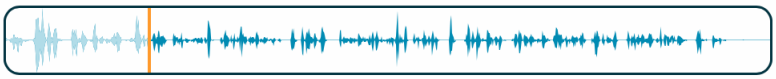
Predict using the interface: How do you think house price growth in this city will change over the next 12 months?

In the interface below, the numbers on the horizontal axis represent percent changes in house price growth, with negative numbers indicating a decrease in house price growth, positive numbers indicating an increase in house price growth, and zero indicating no change in house price growth.

The height of the bars as you click and drag indicates how **likely** you think each percentage change in house price growth is. The higher the bar, the more likely you think it is that house price growth will change by this much.

Note that year-on-year changes in house price growth in this city are almost always between -10% and +10%. **In the absence of additional specific information, it is often the best strategy to predict that the growth level next year will be the same as last year's growth level (i.e., a change of 0%).**

On the next page, a recording will start automatically.



We will now ask you questions relating to **what you think** about house prices in this city over the next 12 months.

→

How do you think house price growth in this city will change over the next 12 months?

In the interface below, the numbers on the horizontal axis represent percent changes in house price growth, with negative numbers indicating a decrease in house price growth, positive numbers indicating an increase in house price growth, and zero indicating no change in house price growth.

The height of the bars as you click and drag indicates how **likely** you think each percentage change in house price growth is. The higher the bar, the more likely you think it is that house price growth will change by this much.

Note that year-on-year changes in house price growth in this city are almost always between -10% and +10%. In the absence of additional specific information, it is often the best strategy to predict that the growth level next year will be the same as last year's growth level (i.e., a change of 0%).

Bonus payment: The above decision counts for real money! The closer your guess is to what the actual change in house price growth in this city over the next 12 months will be, the higher the likelihood of you receiving a bonus payment of $20, if you are selected to be eligible for the bonus. This means: Give your best possible estimate. For more details click here

You just listened to a **summary of an original opinion** about changes in house price growth in a large US city. The person providing the summary was incentivized to pass on any information from the original opinion that would be relevant for how people change their beliefs.

Please think of your best guess about **how the person whose opinion was summarized predicts house price growth in this city will change over the next 12 months.**

Note these questions are **not about the opinion of the person you just listened to,** but **about the opinion of the person they were summarizing.**

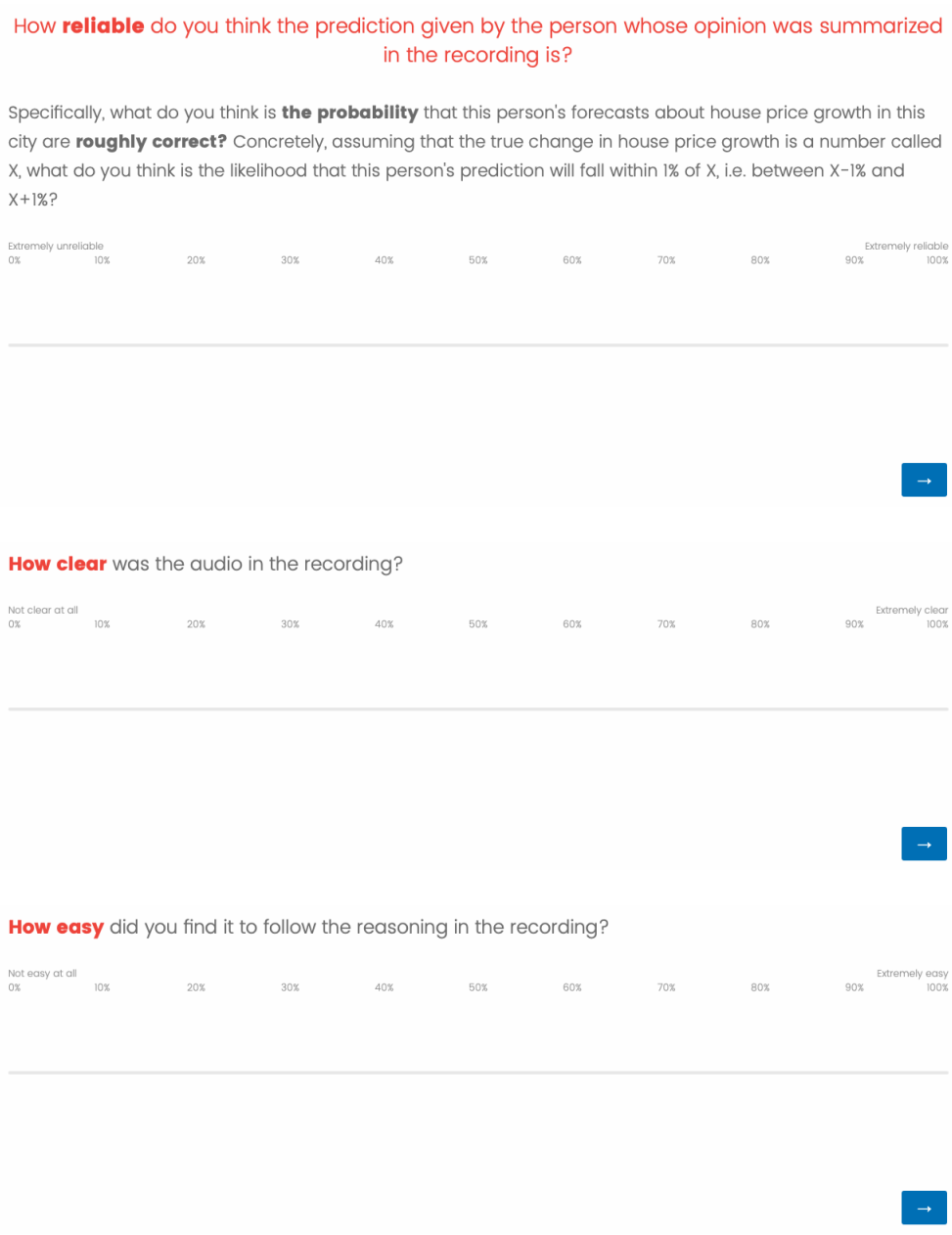
→

How do you think **the person whose opinion was summarized in the recording predicts** house price growth in this city will change over the next 12 months?

Please express your answer as a percentage, with negative numbers indicating a decrease in house price growth, positive numbers indicating an increase in house price growth, and zero indicating no change in house price growth.

[ ] %

→



Eliciting Participant Characteristics

Same as in the Belief Movement Listener Experiment

9 Transmitter Experiment: Investment Decision

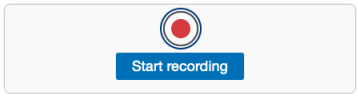
Instructions

Instructions and Microphone Test

In this survey, you will receive information about two topics. Specifically, **recordings of two opinions, one on each topic, will be played to you consecutively and exactly once.** Each opinion will give a **forecast about a variable.** The recordings will take about 4 minutes in total. Your task is to **convey the information content of the recordings to another participant, from memory, according to a specific set of instructions on the next page.** We ask that you **do not take notes.**

Test your microphone

Use the recorder below to test your microphone. First **click "Grant microphone access"** and allow Qualtrics to access your microphone. Click **"Record"**, say the sentence **"The dog runs in the park."**, then click **"Stop Recording & Submit".** You may have to give your browser permission to access the microphone after you click "Record". After a recording, it might take the website a few seconds to upload your recording: please be patient.



Instructions

Thanks for recording your first voice message! This study will take **approximately 20 minutes** to complete. You will earn a **reward of $4.00 for completing the survey**.

In the rest of this study,

- You will listen to a 4-minute recording containing **opinions about two different companies**. **This recording can be played only once.**
- The recordings will be about the performance of a US company that sells IT equipment and a US company that sells building materials. The opinions and questions are about real companies, but you won't be told specifically which companies they refer to. The opinions are **inspired by real commentary** on the companies.
- We ask that you **do not take notes** during the recording, and just listen.
- After the recording, you will then be asked to record **two separate voice messages,** one for each of the two opinions you just listened to. Note that, each time, **you can only record yourself once.**
- After you click submit on a recording, it can take a little while to upload. We kindly ask you to be patient. The upload typically takes no more than 1 minute at most.

Your Bonus Payment

You should aim to create voice messages that **convey any information that would be relevant to someone deciding whether and how to invest in these two companies**.

Please read the following carefully.

- You will be randomly matched to a participant in a separate survey. In that survey, your matched participant will listen to your message and will be asked to divide a $100 investment between three assets: an asset that pays out if the relevant company's performance is higher than expected, another that pays out if its performance is lower than expected, and a third that pays out if its performance is as expected.
- 1 out of every 100 matched participants will be randomly selected to have their investments implemented. Once the company's performance in the last quarter of 2025 is announced, the amount these participants have invested in the correct asset (the one matching the company's actual performance) will be doubled and paid to them. If your matched participant is one of these people, you will also be paid the payoff of their investment.
- Note that this other respondent will not have any information about this asset other than your voice recording. So their investment decision will hinge on the voice recording you transmit to them. You should therefore record a message that lets the other respondent make the best investment possible.

To complete the study, you will need to read all instructions carefully and *correctly answer the comprehension questions*.

Comprehension questions

Please answer the comprehension questions below. Note that if you fail them twice in a row, you will not be eligible for the completion payment.

Which one of the following statements is true?

To maximize my earnings, I should imitate the original message, but in a different accent or voice.

To maximize my earnings, I should describe the general topic of the original message without being specific about the contents of the message.

To maximize my earnings, I should pass on all information from the original message that is relevant for someone making an investment related to the company discussed in the message.

Which one of the following statements is true?

I can only play the original recording once, but can do as many practice messages as I want before submitting my final voice messages.

I can play the original recording only once, and I can record each voice message only once.

I can play the original recording as many times as I want, but can only record myself once.

Which one of the following statements is true?

The participant I am matched to will be told the names of the companies and be given information about their stock prices.

The participant I am matched to will listen to both the original message and the message I record.

The participant I am matched to will not receive any information about the companies apart from the messages I record.

Which one of the following statements is true?

I should try to write down the original recording word-for-word while listening to it.

I should just listen to the original recording, not taking notes.

→

Audio Recordings

When you click onto the next page, a recording will **start playing automatically.** This recording will contain **two opinions about two separate companies.**

You should treat the two opinions on the two different companies as **entirely independent** of each other.

You will then be asked to create separate voice messages about each opinion.

→

The recordings of the two opinions are now playing, back-to-back. Ensure you can hear the voice clearly!

Your recording on **only the first topic: company that sells IT equipment**

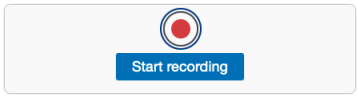
Remember that your bonus payment depends on the performance of an investment related to this company that will be made by another participant in another survey. This participant will listen to your voice message and will not receive any other information about the company.

→

Your voice message about **the performance of a company that sells IT equipment.**

Please hit "Start Recording" to begin recording. Then talk into your microphone, and submit once you're done.

After submitting, it may take a few seconds before the next page appears.



Your recording on **only the second topic: company that sells building materials**

Remember that your bonus payment depends on the performance of an investment related to this company that will be made by another participant in another survey. This participant will listen to your voice message and will not receive any other information about the company.

→

Your voice message about **the performance of a company that sells building materials.**

Please hit "Start Recording" to begin recording. Then talk into your microphone, and submit once you're done.

After submitting, it may take a few seconds before the next page appears.

In the recording you just created, did you include information about the speaker's prediction about the **level** of the company's earnings in the last quarter of 2025 (specifically whether the earnings would be higher, lower, or the same as expected)?

Yes

No

In the recording you just created, did you include information about the **reliability or certainty** of the speaker's prediction?

Yes

No

→

Own Beliefs

Think about the **first recording you listened to**, about the performance of a company that sells IT equipment.

→

Company that sells IT equipment

Relative to what is currently expected, do you think the earnings performance of this company in the last quarter of 2025 will be higher or lower than expected? By how much?

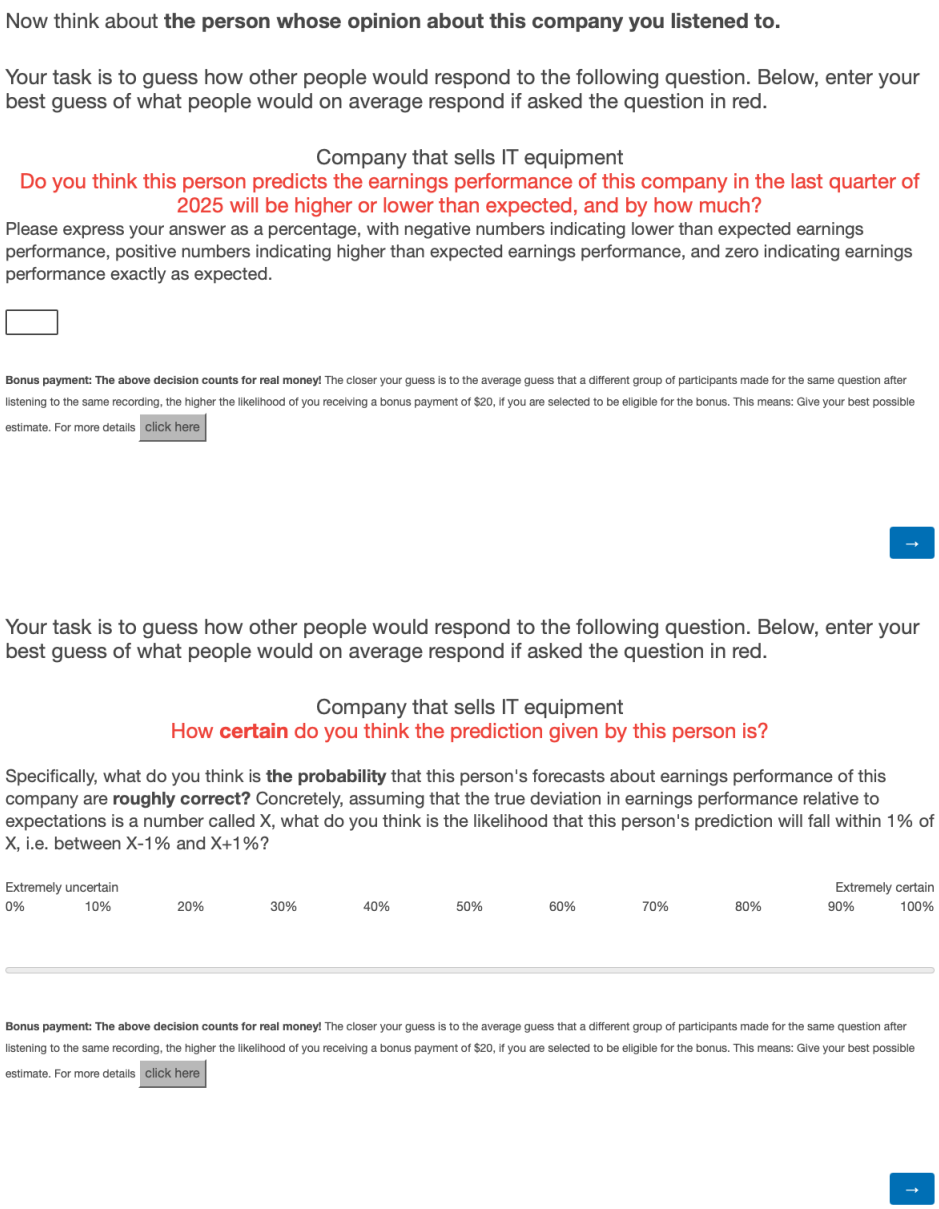
Please express your answer as a percentage, with negative numbers indicating earnings performance that is lower than expected, positive numbers indicating earnings performance that is higher than expected, and zero indicating earnings performance that is exactly as expected.

Note that earnings performance is almost always between -15% and +15% of expectations. In the absence of additional specific information, it is often the best strategy to predict that earnings performance will be exactly as expected (i.e., a deviation of 0%).

[ ] %

Bonus payment: The above decision counts for real money! The closer your guess is to what the actual deviation in earnings performance of this company will be, the higher the likelihood of you receiving a bonus payment of $20, if you are selected to be eligible for the bonus. This means: Give your best possible estimate. For more details click here

→



Same questions for the building materials company

10 Listener Experiment: Investment Decision

Instructions

Thanks for agreeing to participate!

In this survey, you will hear two **1-2 minute voice recordings** about **financial information relating to two companies**: one company that sells IT equipment, and one company that sells building materials.

Each time, the recording will be either

- **an original opinion** about the topic, or
- a **voice message summarizing the original opinion,** recorded by another participant in this study who previously listened to the original opinion.

The voice recording will be played to you exactly once.

The original opinions are about the financial outcomes of an IT company and a company that sells business materials in the last quarter of 2025, and are inspired by real commentary on those topics.

Your task is to **answer questions on what you think will happen to the financial outcomes of the companies** and to **make two simple investment decisions based on what you expect about the performance of the two companies, using the information you hear**. We will also ask you questions about what you guess **the person who recorded the original opinion thinks** about the companies.

Test your speaker

Use the play button below to test your speaker. Click "Play" to play back a voice message and select the sentence that you heard in the text box below.

Please select the sentence that you listened to in the voice message above:

○ The koala climbs up the tree.	○ The cat waits for the mouse to come back.
○ The dog runs in the park.	○ The fox sneaks through the garden.
○ The lion looks at the gazelle.	○ The turtle swims in the sea.

Instructions

Thanks for listening to your first recording! This study will take **approximately 15 minutes** to complete. You will earn a **reward of $3.00 for completing the survey**.

In the rest of this study, there will be two blocks, covering the performance of a company that sells IT equipment and a company that sells building materials, not necessarily in that order. In each block, the following will happen.

- You will listen to a **short 1-2 minute recording** about a topic. The recording will either be **an original opinion**, or **another participant's summary of that original opinion.** The other participant was paid to pass on any information from the relevant recording that is relevant to someone making an investment decision related to the relevant company.
- Each time, you should pay attention to the recording's prediction about the performance of the company and the certainty of that prediction**.**
- After listening to the recording, you will be asked several questions relating to **what you think** about the variable discussed in the recording over the next 12 months, and about **what you guess the person giving the original opinion thinks** about the variable. You will also be asked to **make an investment decision** based on the information you received about the company.
- In some voice messages you only hear the other person speaking after a small delay, because the speaker may have paused before speaking. Please be patient.

Your Bonus Payment

One of every hundred participants is eligible for a **bonus payment**. Your likelihood of receiving a bonus payment depends on how **the investment decision you made actually turns out** and **how accurately you answer the questions about the performance of these companies and the expert's opinion**.

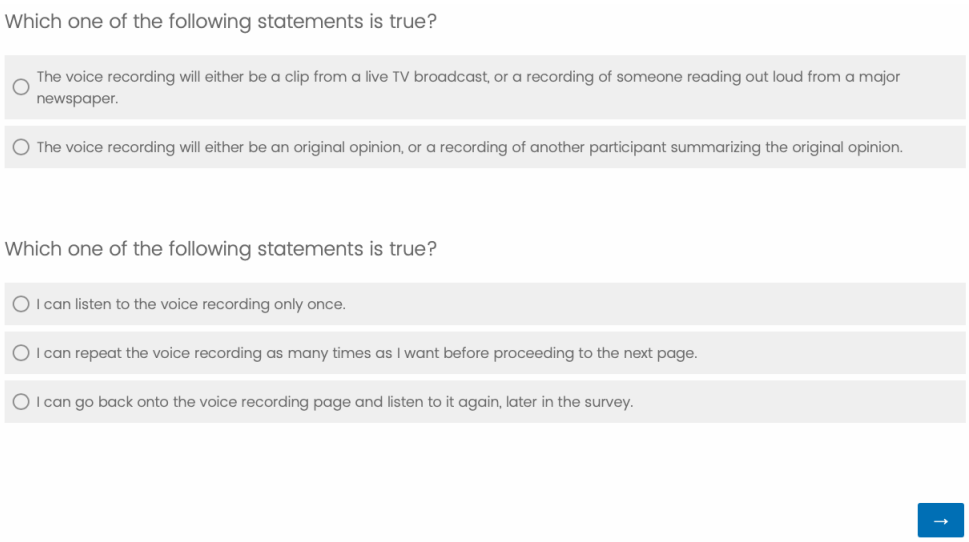
If you are selected to be eligible for a bonus payment, one of the questions will be randomly selected and your answer to that randomly-chosen question determines your probability of receiving the bonus. On each question, you will receive information on how the bonus is calculated. Your bonus payment will be made as soon as actual outcomes of these companies are revealed, in early 2026.

Comprehension questions

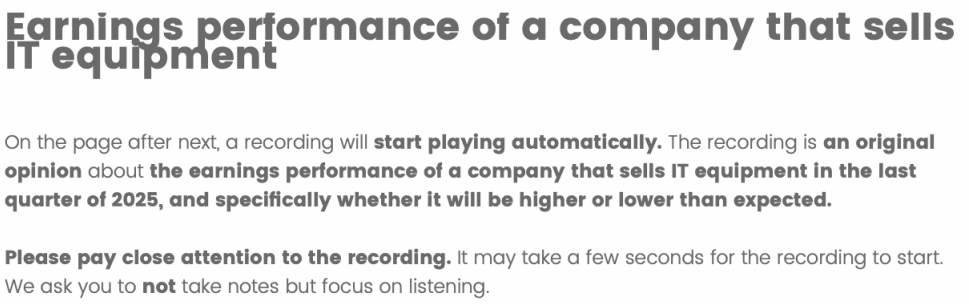
Please answer the comprehension questions below. Note that if you fail them twice in a row, you will not be eligible for the completion payment.

Which one of the following statements is true?

- ◯ The recordings will be about a new line of products released by the company conducting this survey.
- ◯ The recordings will be about US Federal Reserve interest rate policy over the next year.
- ◯ The recordings will be about the performance of a company that sells IT equipment and a company that sells building materials.


Which one of the following statements is true?
The voice recording will either be a clip from a live TV broadcast, or a recording of someone reading out loud from a major newspaper.
The voice recording will either be an original opinion, or a recording of another participant summarizing the original opinion.
Which one of the following statements is true?
I can listen to the voice recording only once.
I can repeat the voice recording as many times as I want before proceeding to the next page.
I can go back onto the voice recording page and listen to it again, later in the survey.
→

Company 1


Earnings performance of a company that sells IT equipment
On the page after next, a recording will start playing automatically. The recording is an original opinion about the earnings performance of a company that sells IT equipment in the last quarter of 2025, and specifically whether it will be higher or lower than expected.
Please pay close attention to the recording. It may take a few seconds for the recording to start. We ask you to not take notes but focus on listening.

After listening to the recording, you will be asked the following questions:

Do you think the earnings performance of this company in the last quarter of 2025 will be higher or lower than expected? By how much?

Thinking about the person whose opinion was summarized in the recording, do you think this person thinks the earnings performance of this company in the last quarter of 2025 will be higher or lower than expected?

Thinking about the person whose opinion was summarized, how certain do you think their prediction is?

If you had to distribute $100 between three assets, (1) which pays out if the company's earnings end up higher than expected, (2) which pays out if the company's earnings end up lower than expected, and (3) which pays out if the company's earnings end up about the same as expected, how would you distribute your investment?

Each question is equally likely to be chosen for the bonus payment.

→

Company that sells IT equipment

Your guess before listening to the recording

Given the information you have received above and before listening to the recording, do you expect the earnings performance of this company to be higher, lower, or the same as expected, and by how much?

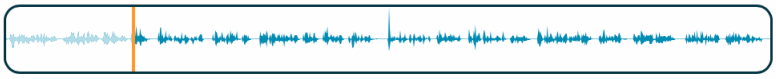
Note that in the absence of additional specific information, it is often the best strategy to predict that the earnings performance of this company will be **the same as expected (i.e., a deviation of 0%).**

Please express your answer **as a percentage**, with negative numbers indicating lower than expected performance, positive numbers indicating higher than expected performance, and zero indicating performance exactly as expected.

[ ] %

On the next page, a recording will start automatically.

→



We will now ask you questions relating to **what you think** about whether the earnings performance of the company that sells IT equipment will be higher or lower than expected.

→

Company that sells IT equipment

Relative to what is currently expected, do you think the earnings performance of this company in the last quarter of 2025 will be higher or lower than expected? By how much?

Please express your answer as a percentage, with negative numbers indicating earnings performance that is lower than expected, positive numbers indicating earnings performance that is higher than expected, and zero indicating earnings performance that is exactly as expected.

Note that earnings performance is almost always between -15% and +15% of expectations. In the absence of additional specific information, it is often the best strategy to predict that earnings performance will be exactly as expected (i.e., a deviation of 0%).

[ ] %

Bonus payment: The above decision counts for real money! The closer your guess is to what the actual deviation in earnings performance of this company will be, the higher the likelihood of you receiving a bonus payment of $20, if you are selected to be eligible for the bonus. This means: Give your best possible estimate. For more details click here

→

Investment decision on IT company based on recording

You just listened to an audio recording providing you with information about the earnings of a company that produces IT equipment, and whether they will be higher or lower than expected in the last quarter of 2025.

In this task, you will allocate $100 across three different assets. **Each asset pays off depending on whether the IT company's earnings are higher, lower, or the same as expected in the last quarter of 2025.** These earnings will be announced in the first quarter of 2026.

You may allocate the $100 in any way you like, as long as the total adds up to exactly $100. You can put all $100 into one asset or split it across multiple assets.

The Three Assets

- Asset A: Higher-than-Expected Earnings
  This asset pays off if the company's earnings turn out to be at least 2% higher than expected (i.e., a value of +2% in the preceding questions).
- Asset B: Lower-than-Expected Earnings
  This asset pays off if the company's earnings turn out to be at least 2% lower than expected (i.e., a value of -2% in the preceding questions).
- Asset C: Earnings Exactly at Expectations
  This asset pays off if the company's earnings turn out to be within 2% of expectations (i.e., a value between -2% and +2% in the preceding questions).

Payoffs

- After the earnings announcement, only the asset corresponding to the actual outcome will pay off.
- The asset that pays off will return $2 for every $1 you allocated to it.
- The other two assets will pay $0.

Your total earnings from this task will therefore depend on how you allocate the $100 and which outcome actually occurs. At the end of this study, 1 out of every 100 participants will be randomly selected to be paid based on their investment choice.

How to Decide

Your allocation should reflect your beliefs about how likely each outcome is.

- If you believe one outcome is more likely, you may want to allocate more money to the corresponding asset.
- If you are uncertain, you may want to spread your allocation across multiple assets. If you are completely uncertain, you may want to spread the total equally across all three buckets ($33 per bucket).

There is no correct or incorrect allocation. Please allocate the $100 in a way that best reflects your judgment. **Investment choice for IT equipment company:**

Asset A: **Higher-Than-Expected** Earnings	0	$
Asset B: **Lower-Than-Expected** Earnings	0	$
Asset C: **As-Expected** Earnings	0	$
Total	0	$

→

You just listened to an **original opinion piece** about the earnings performance of a company that sells IT equipment. Please think of your best guess about what other people would infer about **whether the person who gave this opinion predicts the earnings performance of this company will be higher or lower than expected.**

→

Your task is to guess how other people would respond to the following question. (See how you get paid for this question at the bottom of this page.) Below, enter your best guess of what people would on average respond if asked the question in red.

Company that sells IT equipment

Do you think **this person predicts** the earnings performance of this company in the last quarter of 2025 will be higher or lower than expected, and by how much?

Please express your answer as a percentage, with negative numbers indicating lower than expected earnings performance, positive numbers indicating higher than expected earnings performance, and zero indicating earnings performance exactly as expected.

[ ] %

Bonus payment: The above decision counts for real money! The closer your guess is to the average guess that a different group of participants made for the same question after listening to the same recording, the higher the likelihood of you receiving a bonus payment of $20, if you are selected to be eligible for the bonus. This means: Give your best possible estimate. For more details click here

→

Your task is to guess how other people would respond to the following question. (See how you get paid for this question at the bottom of this page.) Below, enter your best guess of what people would on average respond if asked the question in red.

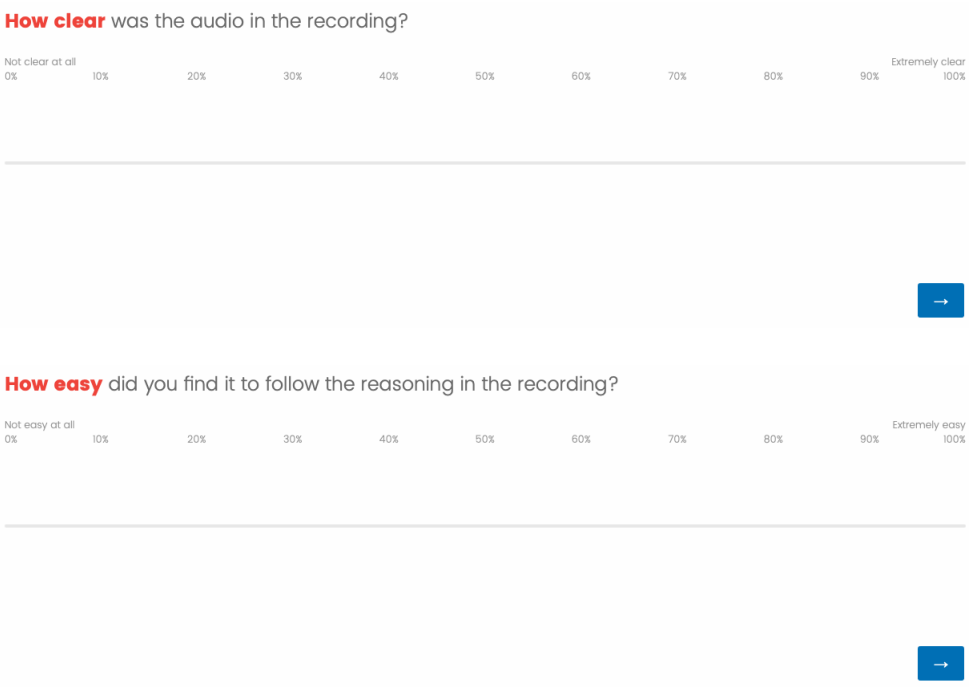
How **certain** do you think the prediction given by this person is?

Specifically, what do you think is **the probability** that this person's forecasts about earnings performance of this company are **roughly correct?** Concretely, assuming that the true deviation in earnings performance relative to expectations is a number called X, what do you think is the likelihood that this person's prediction will fall within 1% of X, i.e. between X-1% and X+1%?

Extremely uncertain — Extremely certain

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Bonus payment: The above decision counts for real money! The closer your guess is to the average guess that a different group of participants made for the same question after listening to the same recording, the higher the likelihood of you receiving a bonus payment of $20, if you are selected to be eligible for the bonus. This means: Give your best possible estimate. For more details click here


How clear was the audio in the recording?
Not clear at all
Extremely clear
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%
→
How easy did you find it to follow the reasoning in the recording?
Not easy at all
Extremely easy
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%
→

Company 2


Earnings performance of a company that sells building materials
On the page after next, a recording will start playing automatically. The recording is a summary of an original opinion about the earnings performance of a company that sells building materials in the last quarter of 2025, and specifically whether it will be higher or lower than expected.
Please pay close attention to the recording. It may take a few seconds for the recording to start. We ask you to not take notes but focus on listening.

After listening to the recording, you will be asked the following questions:

Do you think the earnings performance of this company in the last quarter of 2025 will be higher or lower than expected? By how much?

Thinking about the person whose opinion was summarized in the recording, do you think this person thinks the earnings performance of this company in the last quarter of 2025 will be higher or lower than expected?

Thinking about the person whose opinion was summarized, how certain do you think their prediction is?

If you had to distribute $100 between three assets, (1) which pays out if the company's earnings end up higher than expected, (2) which pays out if the company's earnings end up lower than expected, and (3) which pays out if the company's earnings end up about the same as expected, how would you distribute your investment?

Each question is equally likely to be chosen for the bonus payment.

→

Company that sells building materials
Your guess before listening to the recording

Given the information you have received above and before listening to the recording, do you expect the earnings performance of this company to be higher, lower, or the same as expected, and by how much?

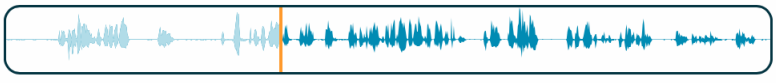
Note that in the absence of additional specific information, it is often the best strategy to predict that the earnings performance of this company will be **the same as expected (i.e., a deviation of 0%).**

Please express your answer **as a percentage**, with negative numbers indicating lower than expected performance, positive numbers indicating higher than expected performance, and zero indicating performance exactly as expected.

[ ] %

On the next page, a recording will start playing automatically.

→



You just listened to a **summary of an original opinion** about the earnings performance of a company that sells building materials. The person providing the summary was incentivized to pass on any information from the original opinion that would be relevant for making investment decisions related to this company.

Please think of your best guess about what other people would infer about **whether the person whose opinion was summarized predicts the earnings growth of this company will be higher or lower than expected .**

Note these questions are **not about the opinion of the person you just listened to,** but **about the opinion of the person they were summarizing.**

→

Your task is to guess how other people would respond to the following question. (See how you get paid for this question at the bottom of this page.) Below, enter your best guess of what people would on average respond if asked the question in red.

Company that sells building materials

Do you think **the person whose opinion was summarized in the recording predicts** the earnings performance of this company in the last quarter of 2025 will be higher or lower than expected, and by how much?

Please express your answer as a percentage, with negative numbers indicating lower than expected earnings performance, positive numbers indicating higher than expected earnings performance, and zero indicating earnings performance exactly as expected.

[ ] %

Bonus payment: The above decision counts for real money! The closer your guess is to the average guess that a different group of participants made for the same question after listening to the same recording, the higher the likelihood of you receiving a bonus payment of $20, if you are selected to be eligible for the bonus. This means: Give your best possible estimate. For more details click here

→

Your task is to guess how other people would respond to the following question. (See how you get paid for this question at the bottom of this page.) Below, enter your best guess of what people would on average respond if asked the question in red.

How **certain** do you think the prediction given by the person whose opinion was summarized in the recording is?

Specifically, what do you think is **the probability** that this person's forecasts about earnings performance of this company are **roughly correct?** Concretely, assuming that the true deviation in earnings performance relative to expectations is a number called X, what do you think is the likelihood that this person's prediction will fall within 1% of X, i.e. between X-1% and X+1%?

Bonus payment: The above decision counts for real money! The closer your guess is to the average guess that a different group of participants made for the same question after listening to the same recording, the higher the likelihood of you receiving a bonus payment of $20, if you are selected to be eligible for the bonus. This means: Give your best possible estimate. For more details click here

We will now ask you questions relating to **what you think** about whether the earnings performance of the company that sells IT equipment will be higher or lower than expected.

→

Company that sells building materials

Relative to what is currently expected, do you think the earnings performance of this company in the last quarter of 2025 will be higher or lower than expected? By how much?

Please express your answer as a percentage, with negative numbers indicating earnings performance that is lower than expected, positive numbers indicating earnings performance that is higher than expected, and zero indicating earnings performance that is exactly as expected.

Note that earnings performance is almost always between -15% and +15% of expectations. In the absence of additional specific information, it is often the best strategy to predict that earnings performance will be exactly as expected (i.e., a deviation of 0%).

[ ] %

Bonus payment: The above decision counts for real money! The closer your guess is to what the actual deviation in earnings performance of this company will be, the higher the likelihood of you receiving a bonus payment of $20, if you are selected to be eligible for the bonus. This means: Give your best possible estimate. For more details click here

→

Investment decision on building materials company based on recording

You just listened to an audio recording providing you with information about the earnings of a company that produces building materials, and whether they will be higher or lower than expected in the last quarter of 2025.

In this task, you will allocate $100 across three different assets. **Each asset pays off depending on whether the building materials company's earnings are higher, lower, or the same as expected in the last quarter of 2025.** These earnings will be announced in the first quarter of 2026.

You may allocate the $100 in any way you like, as long as the total adds up to exactly $100. You can put all $100 into one asset or split it across multiple assets.

The Three Assets

- Asset A: Higher-than-Expected Earnings
  This asset pays off if the company's earnings turn out to be at least 2% higher than expected (i.e., a value of +2% in the preceding questions).

- Asset B: Lower-than-Expected Earnings
  This asset pays off if the company's earnings turn out to be at least 2% lower than expected (i.e., a value of -2% in the preceding questions).

- Asset C: Earnings Exactly at Expectations
  This asset pays off if the company's earnings turn out to be within 2% of expectations (i.e., a value between -2% and +2% in the preceding questions).

Payoffs

- After the earnings announcement, only the asset corresponding to the actual outcome will pay off.
- The asset that pays off will return $2 for every $1 you allocated to it.
- The other two assets will pay $0.

Your total earnings from this task will therefore depend on how you allocate the $100 and which outcome actually occurs. At the end of this study, 1 out of every 100 participants will be randomly selected to be paid based on their investment choice.

How to Decide

Your allocation should reflect your beliefs about how likely each outcome is.

- If you believe one outcome is more likely, you may want to allocate more money to the corresponding asset.
- If you are uncertain, you may want to spread your allocation across multiple assets. If you are completely uncertain, you may want to spread the total equally across all three buckets ($33 per bucket).

There is no correct or incorrect allocation. Please allocate the $100 in a way that best reflects your judgment. **Investment choice for building materials company:**

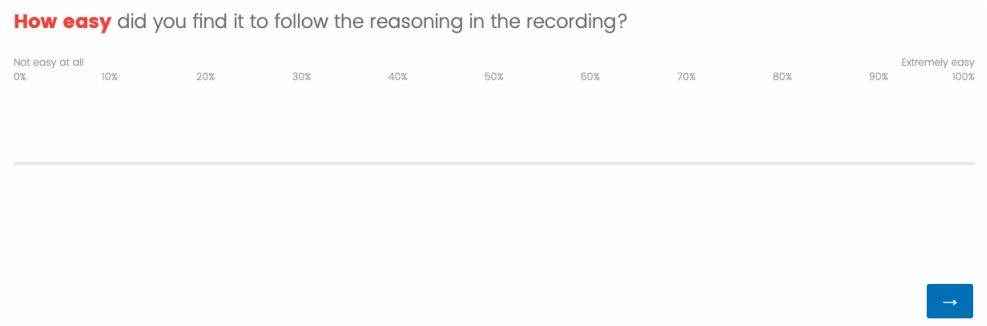
Asset A: **Higher-Than-Expected** Earnings	0 $
Asset B: **Lower-Than-Expected** Earnings	0 $
Asset C: **As-Expected** Earnings	0 $
Total	0 $

→

How clear was the audio in the recording?

Not clear at all 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% Extremely clear 100%

→



Eliciting Participant Characteristics

Same as in the Belief Movement Listener Experiment

11 Transmitter Experiment: Endogenous Transmitter

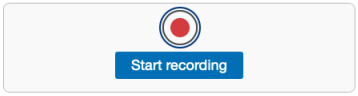
Instructions

Instructions and Microphone Test

In this survey, you will receive information about two topics. Specifically, **recordings of two opinions, one on each topic, will be played to you consecutively and exactly once.** Each opinion will give a **forecast about a variable.** The recordings will take about 4 minutes in total. Your task is to **convey the information content of the recordings to another participant, from memory, according to a specific set of instructions on the next page.** We ask that you **do not take notes.**

Test your microphone

Use the recorder below to test your microphone. First **click "Grant microphone access"** and allow Qualtrics to access your microphone. Click **"Record"**, say the sentence **"The dog runs in the park."**, then click **"Stop Recording & Submit".** You may have to give your browser permission to access the microphone after you click "Record". After a recording, it might take the website a few seconds to upload your recording: please be patient.



Instructions

Thanks for recording your first voice message! This study will take **approximately 20 minutes** to complete. You will earn a **reward of $4.00 for completing the survey**.

In the rest of this study,

- You will listen to a 4-minute recording containing **opinions about two different topics**. **This recording can be played only once.**
- The recordings will be about the performance of a US company that sells IT equipment and a US company that sells building materials. The opinions and questions are about real companies, but you won't be told specifically which companies they refer to. The opinions are **inspired by real commentary** on the companies.
- We ask that you **do not take notes** during the recording, and just listen.
- After the recording, you will decide whether to record **two separate voice messages,** one for each of the two opinions you just listened to. Note that, each time, **you can only record yourself once.**
- For each topic, you will be able to choose whether or not to record a voice message to pass on.
- After you click submit on a recording, it can take a little while to upload. We kindly ask you to be patient. The upload typically takes no more than 1 minute at most.

Your Bonus Payment

You should aim to create voice messages that **convey any information that would be relevant to someone deciding whether and how to invest in these two companies**. If you feel there is no useful information to pass on, you can choose not to record a voice message.

Please read the following carefully.

- You will have a 1 out of 100 chance of being matched to a participant in a separate survey.
- In that survey, your matched participant will listen to your message (if you choose to record one) and (regardless of whether you record a message) will be asked to divide a $100 investment between three assets: an asset that pays out if the relevant company's performance is higher than expected, another that pays out if its performance is lower than expected, and a third that pays out if its performance is as expected.
- Once the company's performance in the last quarter of 2025 is announced, the amount this participant invested in the correct asset (the one matching the company's actual performance) will be doubled and paid to them. **You will also be paid** the payoff of their investment.
- Note that this other respondent will not have any information about this asset other than your voice recording (if you choose to record one). So their investment decision will hinge on the voice recording you transmit to them. You should therefore record a message that lets the other respondent make the best investment possible. You can choose not to record a voice message if you think the information from the original message is not helpful.

To complete the study, you will need to read all instructions carefully and *correctly answer the comprehension questions*.

Comprehension questions

Please answer the comprehension questions below. Note that if you fail them twice in a row, you will not be eligible for the completion payment.

Which one of the following statements is true?

To maximize my earnings, I should imitate the original message, but in a different accent or voice.

To maximize my earnings, I should describe the general topic of the original message without being specific about the contents of the message.

To maximize my earnings, I should pass on all information from the original message that is relevant for someone making an investment related to the company discussed in the message.

Which one of the following statements is true?

I can play the original recording only once, and I can record each voice message only once.

I can play the original recording as many times as I want, but can only record myself once.

I can only play the original recording once, but can do as many practice messages as I want before submitting my final voice messages.

Which one of the following statements is true?

The participant I am matched to will not receive any information about the companies apart from the messages I record.

The participant I am matched to will be told the names of the companies and be given information about their stock prices.

The participant I am matched to will listen to both the original message and the message I record.

Which one of the following statements is true?

I should just listen to the original recording, not taking notes.

I should try to write down the original recording word-for-word while listening to it.

→

Original recordings

When you click onto the next page, a recording will **start playing automatically.** This recording will contain **two opinions about two separate companies.**

You should treat the two opinions on the two different companies as **entirely independent** of each other.

You will then be asked to create separate voice messages about each opinion.

→

The recordings of the two opinions are now playing, back-to-back. Ensure you can hear the voice clearly!

Record Voice Messages

Your recording on **only the first topic: company that sells IT equipment**

Remember that your bonus payment depends on the performance of an investment related to this company that will be made by another participant in another survey. This participant will listen to your voice message and will not receive any other information about the company.

If you prefer, you can decide not to record a message. In this case, the participant you're matched to will make the investment decision without hearing any message.

Do you want to record a voice message relating to this company?

Yes

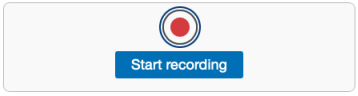
No

→

Your voice message about **the performance of a company that sells IT equipment.**

Please hit "Start Recording" to begin recording. Then talk into your microphone, and submit once you're done.

After submitting, it may take a few seconds before the next page appears.



Your recording on **only the second topic: company that sells building materials**

Remember that your bonus payment depends on the performance of an investment related to this company that will be made by another participant in another survey. This participant will listen to your voice message and will not receive any other information about the company.

If you prefer, you can decide not to record a message. In this case, the participant you're matched to will make the investment decision without hearing any message.

Do you want to record a voice message relating to this company?

Yes

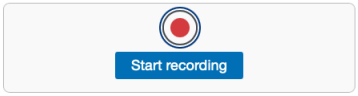
No

→

Your voice message about **the performance of a company that sells building materials.**

Please hit "Start Recording" to begin recording. Then talk into your microphone, and submit once you're done.

After submitting, it may take a few seconds before the next page appears.



When you were deciding **whether or not** to record a message to pass on the information you heard, what considerations or reasons were you thinking about? Why did you make the decision you did? Answer in 1-3 sentences.

→

Opinion Audio 1

Think about the **first recording you listened to**, about the performance of a company that sells IT equipment.

→

Company that sells IT equipment

Relative to what is currently expected, do you think the earnings performance of this company in the last quarter of 2025 will be higher or lower than expected? By how much?

Please express your answer as a percentage, with negative numbers indicating earnings performance that is lower than expected, positive numbers indicating earnings performance that is higher than expected, and zero indicating earnings performance that is exactly as expected.

Note that earnings performance is almost always between -15% and +15% of expectations. In the absence of additional specific information, it is often the best strategy to predict that earnings performance will be exactly as expected (i.e., a deviation of 0%).

%

Bonus payment: The above decision counts for real money! The closer your guess is to what the actual deviation in earnings performance of this company will be, the higher the likelihood of you receiving a bonus payment of $20, if you are selected to be eligible for the bonus. This means: Give your best possible estimate. For more details click here

→

Now think about **the person whose opinion about this company you listened to.**

Company that sells IT equipment

Do you think this person predicts the earnings performance of this company in the last quarter of 2025 will be higher or lower than expected, and by how much?

Please express your answer as a percentage, with negative numbers indicating lower than expected earnings performance, positive numbers indicating higher than expected earnings performance, and zero indicating earnings performance exactly as expected.

→

How **certain** do you think the prediction given by this person is?

Specifically, what do you think is **the probability** that this person's forecasts about earnings performance of this company are **roughly correct?** Concretely, assuming that the true deviation in earnings performance relative to expectations is a number called X, what do you think is the likelihood that this person's prediction will fall within 1% of X, i.e. between X-1% and X+1%?

Extremely uncertain — Extremely certain

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

→

Opinion Audio 2

Think about the **second recording you listened to**, about the performance of a company that sells building materials.

→

Company that sells building materials

Relative to what is currently expected, do you think the earnings performance of this company in the last quarter of 2025 will be higher or lower than expected? By how much?

Please express your answer as a percentage, with negative numbers indicating earnings performance that is lower than expected, positive numbers indicating earnings performance that is higher than expected, and zero indicating earnings performance that is exactly as expected.

Note that earnings performance is almost always between -15% and +15% of expectations. In the absence of additional specific information, it is often the best strategy to predict that earnings performance will be exactly as expected (i.e., a deviation of 0%).

[ ] %

Bonus payment: The above decision counts for real money! The closer your guess is to what the actual deviation in earnings performance of this company will be, the higher the likelihood of you receiving a bonus payment of $20, if you are selected to be eligible for the bonus. This means: Give your best possible estimate. For more details click here

→

Now think about **the person whose opinion about this company you listened to.**

Company that sells building materials

Do you think this person predicts the earnings performance of this company in the last quarter of 2025 will be higher or lower than expected, and by how much?

Please express your answer as a percentage, with negative numbers indicating lower than expected earnings performance, positive numbers indicating higher than expected earnings performance, and zero indicating earnings performance exactly as expected.

[ ] %

→

How **certain** do you think the prediction given by this person is?

Specifically, what do you think is **the probability** that this person's forecasts about earnings performance of this company are **roughly correct?** Concretely, assuming that the true deviation in earnings performance relative to expectations is a number called X, what do you think is the likelihood that this person's prediction will fall within 1% of X, i.e. between X-1% and X+1%?

Extremely uncertain									Extremely certain	
0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%

→