

This appendix provides sample surveys used in the experiments. Our study implements the experiment through Qualtrics, and we use the Qualtrics functionality to randomize participants to different treatment conditions. The experiments can also be implemented through other interface.

We specify the payoffs of the risky asset by truncating a normal distribution with 18% volatility into nine possible outcomes, as shown in the plots below.¹ In the incentivized experiment, we calculate participants' investment results by combining their allocation decisions with the returns of the investments, and the returns of the risky asset is drawn from this truncated distribution. The investment results are displayed after the entire experiment is completed, as the survey form below shows.

There are substantial variations in risk attitude across individuals, so our experiments require a sufficient sample size to reliably detect treatment effects. All of our experiments have 200 participants per treatment condition. Sample size with less than 50 to 100 participants may not produce significant results.

Links to interface for benchmark experiments:

Experiment B1 (MTurk, Hypothetical):

https://hbs.qualtrics.com/jfe/form/SV_bgu2biLcYGUGsWV

Experiment B2 (MTurk, Incentivized):

https://hbs.qualtrics.com/jfe/form/SV_8f6osXfpE0SqX6l

Experiment B3 (HBS MBA, Incentivized):

https://hbs.qualtrics.com/jfe/form/SV_agcXRndpmLz5VHL

Sample Survey for Experiment B1 (MTurk, Hypothetical)

Below is the survey presented to participants. Section I contains the main question of investment decision making. Section II contains additional demographic questions.

Thank you very much for your participation. This survey will take you about 15 minutes to complete.

Section I

Please carefully consider the following scenarios, and provide an answer that best describes your preferences. Once you have made a decision and proceeded to the next question, you cannot return and change your previous answers.

Suppose you have total savings of \$100,000 and you would like to invest them for one year. There are two available investments which are described below. You can choose to allocate your savings between these two investments. You will not be able to change your investments

¹ Specifically, we calculate the probability that a random variable following a normal distribution with a given mean and 18% volatility will land in each of the nine segments, merging all the probabilities in the tail to the lowest and highest segments. We round the probabilities to whole numbers. The sum of probabilities in the plot slightly exceeds one hundred due to rounding error.

during the year, and your pay-offs will be delivered after one year.

Treatment Group 1 (participants see the following if they are assigned to Treatment Group 1, which is the high interest rate condition).

Investment A: Investment A’s annual return is 5% for sure.

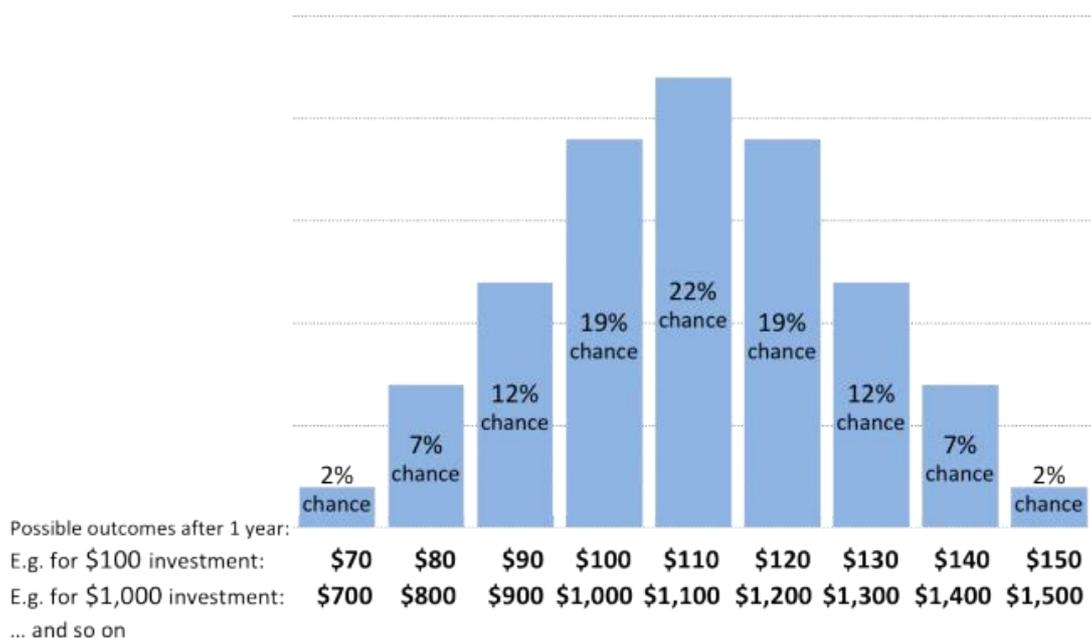
For example, suppose you put \$100 into this investment at the beginning of the year, you will get \$105 by the end of the year.

For another example, suppose you put \$1,000 into this investment at the beginning of the year, you will get \$1,050 by the end of the year.

Investment B: Investment B has nine possible outcomes. Its average annual return is 10%. The volatility of the investment return is 18%. The nine possible outcomes are shown by the chart below, where the number inside each bar indicates the probability of that particular outcome. The outcome of this investment is not correlated with your income or with the overall economic condition.

For example, suppose you put \$100 into this investment at the beginning of the year, you will get \$110 on average by the end of the year. There is uncertainty about the exact amount of money you will get. The first row of the chart below describes the nine possible outcomes: there is a 19% chance that you will get \$120 by the end of the year, there is a 12% chance that you will get \$90 dollars by the end of the year, etc.

For another example, suppose you put \$1,000 into this investment at the beginning of the year, you will get \$1,100 on average by the end of the year. There is uncertainty about the exact amount of money you will get. The second row of the chart below describes the nine possible outcomes: there is a 19% chance that you will get \$1,200 by the end of the year, there is a 12% chance that you will get \$900 dollars by the end of the year, etc.



Treatment Group 2 (participants see the following if they are assigned to Treatment Group 2, which is the low interest rate condition).

Investment A: Investment A’s annual return is 1% for sure.

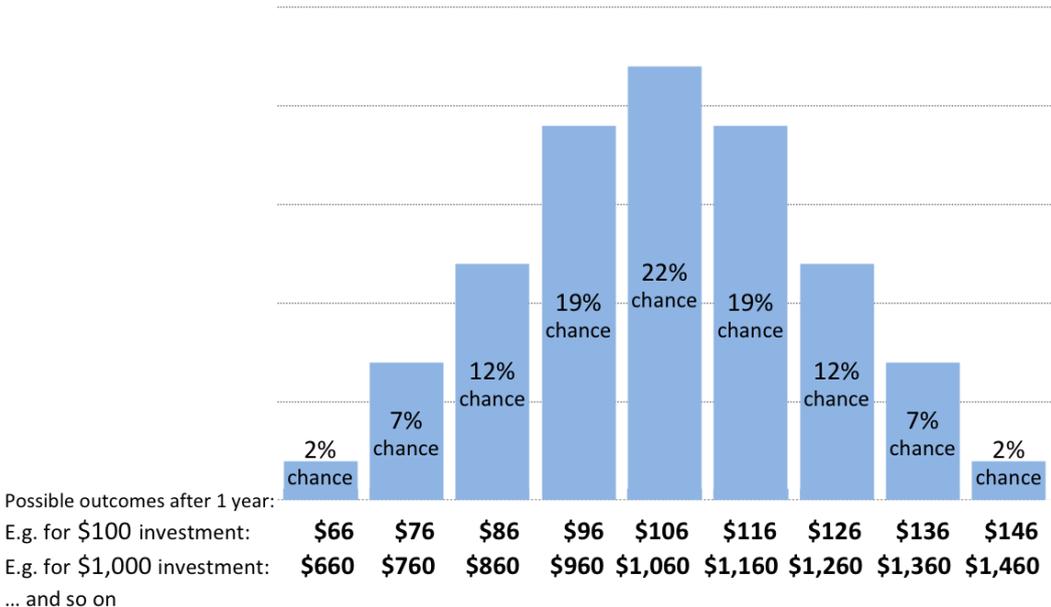
For example, suppose you put \$100 into this investment at the beginning of the year, you will get \$101 by the end of the year.

For another example, suppose you put \$1,000 into this investment at the beginning of the year, you will get \$1,010 by the end of the year.

Investment B: Investment B has nine possible outcomes. Its average annual return is 6%. The volatility of the investment return is 18%. The nine possible outcomes are shown by the chart below, where the number inside each bar indicates the probability of that particular outcome. The outcome of this investment is not correlated with your income or with the overall economic condition.

For example, suppose you put \$100 into this investment at the beginning of the year, you will get \$106 on average by the end of the year. There is uncertainty about the exact amount of money you will get. The first row of the chart below describes the nine possible outcomes: there is a 19% chance that you will get \$116 by the end of the year, there is a 12% chance that you will get \$86 dollars by the end of the year, etc.

For another example, suppose you put \$1,000 into this investment at the beginning of the year, you will get \$1,060 on average by the end of the year. There is uncertainty about the exact amount of money you will get. The second row of the chart below describes the nine possible outcomes: there is a 19% chance that you will get \$1,160 by the end of the year, there is a 12% chance that you will get \$860 dollars by the end of the year, etc.



The rest is the same for participants in both Treatment Group 1 and Treatment Group 2.

Your decision:

In this situation, I would invest my savings of \$100,000 as follows:

(Please fill in the percentage of your total savings allocated to each investment. Your choices need to add up to 100%.)

Investment A: _____ %;

Investment B: _____ %.

(page break)

Could you give a brief explanation of your investment decision? Specifically, list some reasons behind putting this amount of money into Investments A & B, but not other amounts.

(page break)

Section II. Background Information

The investment decision section is now over. In the following, we would like to ask a few questions about yourself and your opinions to help us in our research.

1. What is your gender?
 - Male
 - Female
2. What is your age?
3. What is the highest level of educational degree that you hold?
 - Graduate school (e.g. Masters, Ph.D., Post-doctoral degrees)
 - College
 - High school
 - Below high school
 - Other ____
4. Where have you been living in the past 15 years of your life?
 - Mostly in the US
 - A significant number of years both in and outside the US
 - Mostly outside the US

(break)

5. Do you have any experience investing in financial assets (e.g. stocks, bonds, mutual funds, pension funds, etc.)?

- I have extensive experience investing in financial assets.
 - I have some experience.
 - I have very limited experience.
 - I have no experience at all.
6. What would you say is the minimum acceptable return on your savings? By minimum acceptable return we mean the level of return below which you will feel very uncomfortable.
7. If you were to make some investments with your savings, how would you describe your risk tolerance?
- I am very risk averse and conservative.
 - I am somewhat risk averse but I am willing to hold some risky assets.
 - I am not very risk averse and I am willing to hold a decent amount of risky assets.
 - I am very risk seeking and I have strong preferences for risky assets.
8. Are you currently saving for retirement?
- Yes
 - No
9. a. Do you currently make the following types of payments
- Fixed mortgage payments
 - Fixed payments on other types of loans, such as auto loans, consumer loans, student loans, etc. Please specify: _____
 - Other recurring expenses that are large relative to your income, such as tuition for you or family members, medical bills, rents, etc. Please specify: _____
- b. Please estimate each of the following payments you make every month as a fraction of your total monthly income: (display if applicable)
- _____ % of monthly income on mortgage payments
 - _____ % of monthly income on (non-mortgage loans)
 - _____ % of monthly income on (other recurring expenses)
- (break)
10. What would you say is the average annual interest rate on bank deposits in the past 15 years of your life?
- US ___%
 - Not US ___%
 - I do not understand this question
11. What would you say is the average annual inflation rate in the past 15 years of your life?
- US ___%
 - Not US ___%
 - I do not understand this question

12. What do you think will be the annual rate of inflation in the US in the next 12 months?

13. a. Please roughly estimate the value of your household's total financial wealth (e.g. bank deposits, stocks, bonds, holdings in mutual funds and pension funds, etc.) DO NOT including the value of your current residence in total financial wealth if you are a home owner. Which of the following categories best describes your estimate?

- Below 0 (In debt)
- \$0--\$10,000
- \$10,000--\$50,000
- \$50,000--\$100,000
- \$100,000--\$200,000
- \$200,000--\$500,000
- \$500,000+

b. What is the rough percentage of your household's total financial wealth saved in banks? What is the rough percentage invested in the stock market (including direct holdings of stocks, as well as investments through stock mutual funds and through retirement savings plans)? DO NOT including the value of your current residence in total financial wealth if you are a home owner.

- _____ % in banks.
- _____ % in the stock market.
- _____ % in other financial assets.

(break)

14. Consider the following 6 lotteries below. In each lottery, you have an equal chance of obtaining the amount of money on the left or the amount of money on the right. Which lottery among the ones below would you choose if you are to receive money based on the lottery outcome?

Please select exactly one of the six lotteries:

- a) 50% chance receive \$22 and 50% chance receive \$22
- b) 50% chance receive \$30 and 50% chance receive \$18
- c) 50% chance receive \$38 and 50% chance receive \$14
- d) 50% chance receive \$46 and 50% chance receive \$10
- e) 50% chance receive \$54 and 50% chance receive \$6
- f) 50% chance receive \$60 and 50% chance receive \$0

(break)

The survey is now completed. Do you have any comments and suggestions for the survey? Did

you find anything to be unclear or confusing?

If you have any questions, please feel free to contact us through MTurk or via email at lianchen@mit.edu (Chen Lian), yueranma@g.harvard.edu (Yueran Ma), carmenwang@fas.harvard.edu (Carmen Wang).

(break)

Thank you very much for your participation.

Your validation code is:

xxxxxxx

To receive payment for participating, return to the Mechanical Turk window, enter this validation code, then click “Submit”.

Sample Survey for Experiment B2 (MTurk, Incentivized)

Below is the survey presented to participants in Treatment Group 1 (high interest rate condition). Section I contains the main question of investment decision making. Section II contains additional demographic questions. Participants in Treatment Group 2 (low interest rate condition) answer the same questions in Section II, but in Section I they make investment decisions among two assets with different returns.

Thank you very much for your participation. This survey will take you about 15 minutes to complete.

You will receive \$0.7 base payment plus any bonus you earn in the HIT. One in ten participants will receive the bonus payment. The bonus will be on the scale of \$12, but the precise amount will depend on your investment decision and outcome.

Section I (This section has bonus payments.)

In this section, you will make a decision about allocating your money in different investments. At the beginning, you have 100,000 units of currency, called “Francs”. There are two available investments, which are described below. You can choose to allocate your money between these two investments. One in ten participants will be randomly selected to receive bonus payments proportional to the investment payoff in Francs, with every 8,950 Francs being converted into one dollar of bonus payment.

Your investment payoff and the corresponding bonus size will be displayed at the end of this survey. The base payment will be distributed within one week after the completion of this HIT. Since the investment decision in this section is over a one-year horizon, if you were to receive a bonus payment, the bonus payment will be distributed exactly one year after the completion of this HIT via MTurk. We will also provide a few alternative options to deliver the bonus payment in one year. Details of the timing and method of payment will be redisplayed at the end of the survey to help you keep records. Please contact us at lianchen@mit.edu (Chen Lian), yueranma@g.harvard.edu (Yueran Ma), or carmenwang@fas.harvard.edu (Carmen Wang), or through MTurk if you have any questions about payments.

Investment A: Investment A’s annual return is 5% for sure.

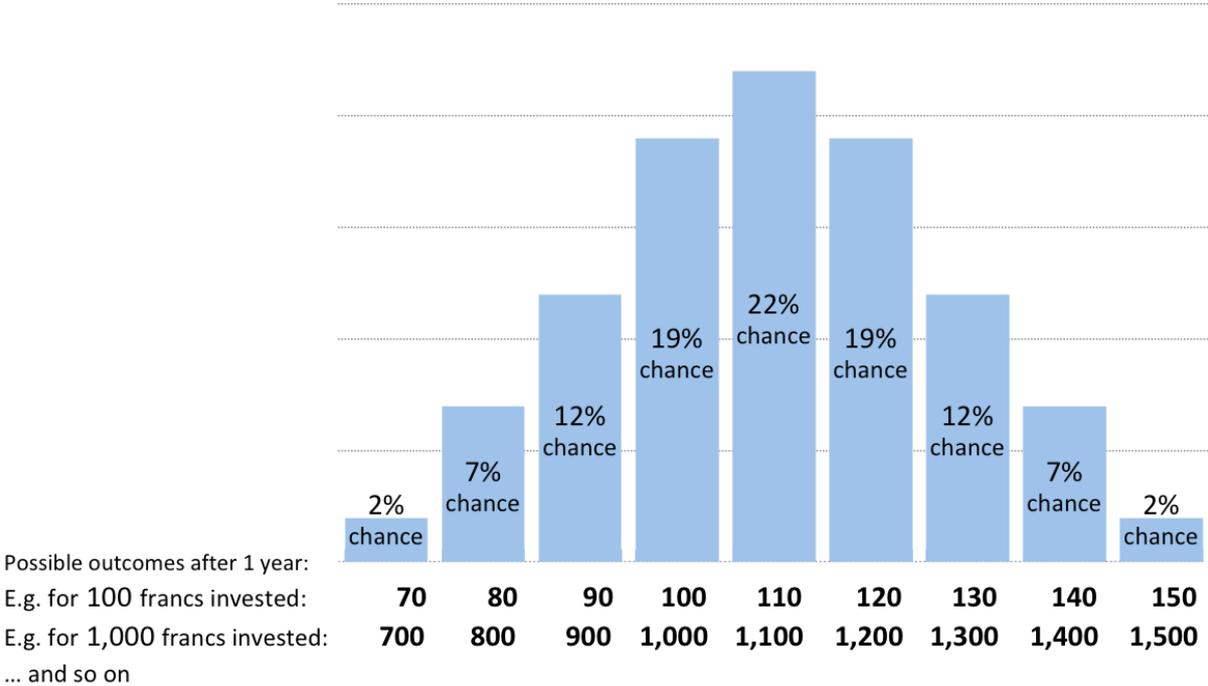
For example, suppose you put 100 Francs into this investment at the beginning of the year, you will get 105 Francs by the end of the year.

For another example, suppose you put 1,000 Francs into this investment at the beginning of the year, you will get 1,050 Francs by the end of the year.

Investment B: Investment B has nine possible outcomes. Its average annual return is 10%. The volatility of the investment return is 18%. The nine possible outcomes are shown by the chart below, where the number inside each bar indicates the probability of that particular outcome.

For example, suppose you put 100 Francs into this investment at the beginning of the year, you will get 110 Francs on average by the end of the year. There is uncertainty about the exact amount of money you will get. The first row of the chart below describes the nine possible outcomes: there is a 19% chance that you will get 120 Francs by the end of the year, there is a 12% chance that you will get 90 Francs by the end of the year, etc.

For another example, suppose you put 1,000 Francs into this investment at the beginning of the year, you will get 1,100 Francs on average by the end of the year. There is uncertainty about the exact amount of money you will get. The second row of the chart below describes the nine possible outcomes: there is a 19% chance that you will get 1,200 Francs by the end of the year, there is a 12% chance that you will get 900 Francs by the end of the year, etc.



We will simulate the outcome of Investment B based on the probability distribution described above. We will then calculate your investment payoffs according to your investment decision. Your payoffs in terms of Francs will be displayed at the end of the survey.

Please carefully consider the above investments, and provide an answer that best describes your preferences. Once you have made a decision and proceeded to the next page of the survey, you cannot return and change your previous answers.

Your decision:

I will invest my 100,000 Francs as follows:
 (Please fill in the percentage of your endowment allocated to each investment. Your choices need to add up to 100%.)
 Investment A: _____%;
 Investment B: _____%.

(page break)

Could you give a brief explanation of your investment decision? Specifically, list some reasons behind putting this amount of money into Investments A & B, but not other amounts.

(page break)

Section II. Background Information

The investment decision section is now over. In the following, we would like to ask a few questions about yourself and your opinions to help us in our research.

1. What is your gender?
 - Male
 - Female
2. What is your age?
3. What is the highest level of educational degree that you hold?
 - Graduate school (e.g. Masters, Ph.D., Post-doctoral degrees)
 - College
 - High school
 - Below high school
 - Other ____
4. Do you have any experience investing in financial assets (e.g. stocks, bonds, mutual funds, pension funds, etc.)?
 - I have extensive experience investing in financial assets.
 - I have some experience.
 - I have very limited experience.
 - I have no experience at all.
5. What would you say is the minimum acceptable return on your savings? By minimum acceptable return we mean the level of return below which you will feel very uncomfortable.
6. Are you currently saving for retirement?
 - Yes
 - No
7. a. Do you currently make fixed mortgage payments? If so, what is the (annual) interest rate?
 - Yes. The interest rate is about ____ %.
 - No.

- I do not know.

b. Do you currently make fixed payments on other types of loans, such as auto loans, consumer loans, student loans, etc.? If so, what is the (annual) interest rate?

- Yes. Loan type: _____. The interest rate is about ____ %.
- No.
- I do not know.

c. Do you have other recurring expenses that are large relative to your income, such as tuition for you or family members, medical bills, rents?

- Yes
- No

8. What would you say is the average interest rate on bank deposits in the past 10 years of your life?

- US ____%
- Not US ____%
- I do not understand this question

(On a separate page:)

9. What would you say is the average annual inflation rate in the past 10 years of your life?

- US ____%
- Not US ____%
- I do not understand this question

10. a. Please roughly estimate the value of your household's total financial wealth (e.g. bank deposits, stocks, bonds, holdings in mutual funds and pension funds, etc.) DO NOT including the value of your current residence in total financial wealth if you are a home owner. Which of the following categories best describes your estimate?

- Below 0 (In debt)
- \$0--\$10,000
- \$10,000--\$50,000
- \$50,000--\$100,000
- \$100,000--\$200,000
- \$200,000--\$500,000
- \$500,000+

b. What is the rough percentage of your household's total financial wealth saved in banks? What is the rough percentage invested in the stock market (including direct holdings of stocks, as well as investments through stock mutual funds and through retirement savings plans)? DO NOT including the value of your current residence in total financial wealth if you are a home owner.

- _____% in banks.

- _____% in the stock market.
- _____% in other financial assets.

(break)

11. If you were to make some investments with your savings, how would you describe your risk tolerance?

- I am very risk averse and conservative.
- I am somewhat risk averse but I am willing to hold some risky assets.
- I am not very risk averse and I am willing to hold a decent amount of risky assets.
- I am very risk seeking and I have strong preferences for risky assets.

(break)

12. Consider the following 6 lotteries below. In each lottery, you have an equal chance of obtaining the amount of money on the left or the amount of money on the right. Which lottery among the ones below would you choose if you are to receive money based on the lottery outcome?

Please select exactly one of the six lotteries:

- a) 50% chance receive \$22 and 50% chance receive \$22
- b) 50% chance receive \$30 and 50% chance receive \$18
- c) 50% chance receive \$38 and 50% chance receive \$14
- d) 50% chance receive \$46 and 50% chance receive \$10
- e) 50% chance receive \$54 and 50% chance receive \$6
- f) 50% chance receive \$60 and 50% chance receive \$0

(break)

The survey is now completed. Do you have any comments and suggestions for the survey? Did you find anything to be unclear or confusing?

(break)

Your investment outcome in Section I is:

Investment A (fixed returns):

Realized Returns: 5% (i.e. for every Franc invested, you get 1.05 Francs)

Investment: _____ Francs. Outcome: _____ Francs.

Investment B (uncertain returns):

Realized Returns: $x\%$ (i.e. for every Franc invested, you get $1+x\%$ Francs)

Investment: _____ Francs. Outcome: _____ Francs.

Final Payoff: _____ + _____ = _____ Francs.

One in ten participants will be randomly selected to receive bonus payment proportional to the final investment payoff. If you are chosen, your bonus payment will be: \$ _____.

You will receive your base payment within one week.

We will send you a notification within one week about whether you are chosen to receive the bonus payment.

Since we would like to simulate an annual investment horizon, if you were to receive a bonus payment, the bonus payment will be delivered in one year, on [date]. We deeply appreciate your understanding.

The default delivery method for the bonus payment is via MTurk. If you are eligible for the bonus payment, we will send you a reminder of the payment via MTurk two weeks before the delivery date. To make sure that you receive the reminder a year from now, you may leave an alternative email address here [_____], and you will also receive the reminder through this email address.

If you are eligible for the bonus payment, but no longer wish to receive it via MTurk after one year, because you are no longer actively working on MTurk or because of other reasons, you can reply to the reminder message and you will have PayPal as an alternative option to receive payment. (For PayPal, we only ask you for the email address linked to your PayPal account. We do not need any additional information. You would need to sign up for a PayPal account if you choose this option and do not have a PayPal account. It is easy to sign up for PayPal and you can find more information about it [here](#). The payment logistics will be included in the reminder message, and you can decide what works best for you when you receive the reminder.)

Make sure to save this page for your record. If you have any questions, please feel free to contact us through MTurk or via email at lianchen@mit.edu (Chen Lian), yueranma@g.harvard.edu (Yueran Ma), carmenwang@fas.harvard.edu (Carmen Wang).

(break)

Thank you very much for your participation.

Your validation code is:

xxxxxxx

To receive payment for participating, return to the Mechanical Turk window, enter this validation code, then click "Submit".

Sample Survey for Experiment III (HBS MBA, Incentivized)

Below is the survey presented to participants in Treatment Group 1 (high interest rate condition). Section I contains the main question of investment decision making. Section II contains additional demographic questions. Participants in Treatment Group 2 (low interest rate condition) answer the same questions in Section II, but in Section I they make investment decisions among two assets with different returns.

Thank you very much for your participation. This survey will take you about 10-15 minutes to complete.

You will receive a \$12 Spangler lunch voucher in appreciation for your participation. One in ten participants will also receive bonus payment. The bonus will be on the scale of \$200, but the precise amount will depend on your investment decision and outcome.

Participation is restricted to current MBA students at Harvard Business School. Other participants would not be eligible for gifts and payments in this survey.

Section I (This section has bonus payments.)

In this section, you will make a decision about allocating your money in different investments. At the beginning, you have 1,000,000 units of currency, called “Francs”. There are two available investments, which are described below. You can choose to allocate your money between these two investments. One in ten participants will be randomly selected to receive bonus payments proportional to the investment payoff in Francs, with every 4950 Francs being converted into one dollar of bonus payment.

Your investment payoff and the corresponding bonus size will be displayed at the end of this survey. We would like to simulate a one-year investment horizon. Thus, if you were to receive a bonus payment, it will be delivered approximately one year after the completion of this survey. The end of the survey redisplay details of payment delivery (as shown in the consent form) to help you keep records.

Investment A: Investment A’s annual return is 5% for sure.

For example, suppose you put 100 Francs into this investment at the beginning of the year, you will get 105 Francs by the end of the year.

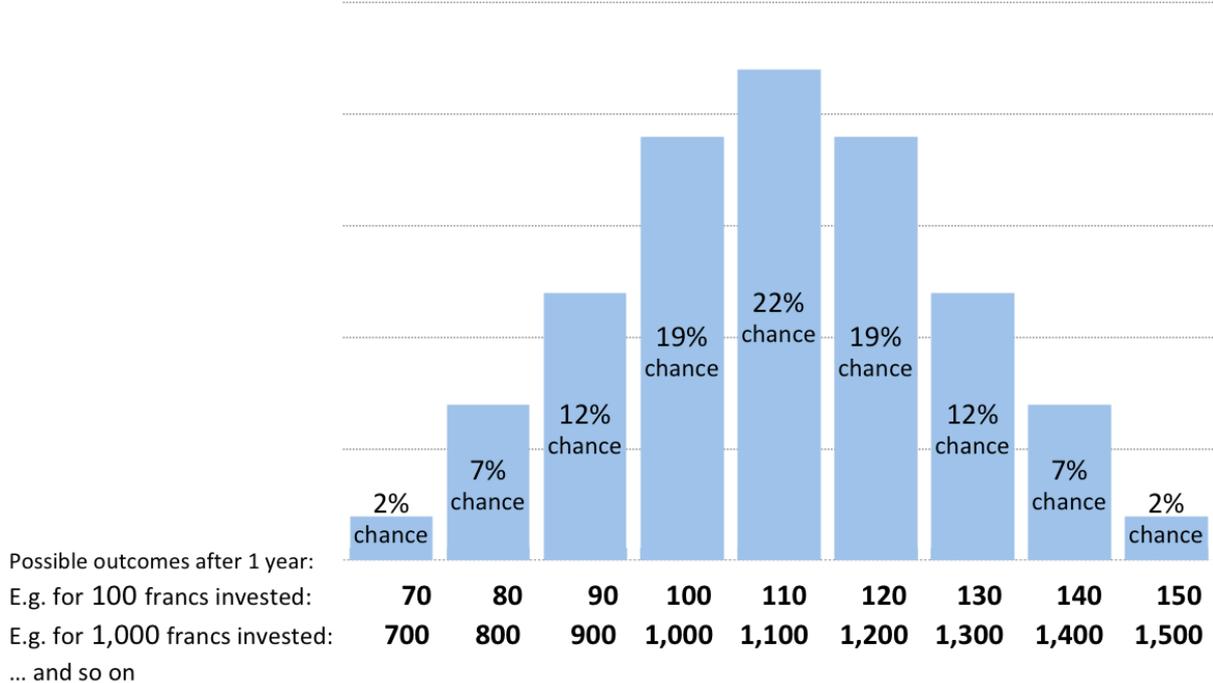
For another example, suppose you put 1,000 Francs into this investment at the beginning of the year, you will get 1,050 Francs by the end of the year.

Investment B: Investment B has nine possible outcomes. Its average annual return is 10%. The volatility of the investment return is 18%. The nine possible outcomes are shown by the chart below, where the number inside each bar indicates the probability of that particular outcome.

For example, suppose you put 100 Francs into this investment at the beginning of the year, you will get 110 Francs on average by the end of the year. There is uncertainty about the exact amount of money you will get. The first row of the chart below describes the nine

possible outcomes: there is a 19% chance that you will get 120 Francs by the end of the year, there is a 12% chance that you will get 90 Francs by the end of the year, etc.

For another example, suppose you put 1,000 Francs into this investment at the beginning of the year, you will get 1,100 Francs on average by the end of the year. There is uncertainty about the exact amount of money you will get. The second row of the chart below describes the nine possible outcomes: there is a 19% chance that you will get 1,200 Francs by the end of the year, there is a 12% chance that you will get 900 Francs by the end of the year, etc.



We will simulate the outcome of Investment B based on the probability distribution described above. We will then calculate your investment payoffs according to your investment decision. Your payoffs in terms of Francs will be displayed at the end of the survey.

Please carefully consider the above investments, and provide an answer that best describes your preferences. Once you have made a decision and proceeded to the next page of the survey, you cannot return and change your previous answers.

Your decision:

I will invest my 100,000 Francs as follows:
 (Please fill in the percentage of your endowment allocated to each investment. Your choices need to add up to 100%.)
 Investment A: _____%;
 Investment B: _____%.

(page break)

Could you give a brief explanation of your investment decision? Specifically, list some reasons behind putting this amount of money into Investments A & B, but not other amounts.

(page break)

Section II. Background Information

The investment decision section is now over. In the following, we would like to ask a few questions about yourself and your opinions to help us in our research.

1. What is your gender?

- Male
- Female

2. What's your primary educational background?

- Humanities
- Social science
- Science and engineering
- Other

3. Where have you been living in the past 15 years of your life?

- Mostly in the US.
- A significant number of years both in the US and outside the US.
- Mostly outside the US.

(break)

4. Do you have any experience investing in financial assets (e.g. stocks, bonds, mutual funds, pension funds, etc.)?

- I have extensive experience investing in financial assets.
- I have some experience.
- I have very limited experience.
- I have no experience at all.

5. Have you worked in the financial service industry?

- Yes
- No

6. What would you say is the minimum acceptable return on your savings? By minimum acceptable return we mean the level of return below which you will feel very uncomfortable.

7. If you were to make some investments with your savings, how would you describe your risk tolerance?

- I am very risk averse and conservative.
- I am somewhat risk averse but I am willing to hold some risky assets.
- I am not very risk averse and I am willing to hold a decent amount of risky assets.
- I am very risk seeking and I have strong preferences for risky assets.

8. a. Do you currently make the following types of payments

- Fixed mortgage payments
- Fixed payments on other types of loans, such as auto loans, consumer loans, student loans, etc. Please specify: _____
- Other recurring expenses that are large relative to your income, such as tuition for you or family members, medical bills, rents, etc. Please specify: _____

b. Please estimate each of the following payments you make every month as a fraction of your total monthly income: (display if applicable)

- _____ % of monthly income on mortgage payments
- _____ % of monthly income on (non-mortgage loans)
- _____ % of monthly income on (other recurring expenses)

(break)

9. What would you say is the average interest rate on bank deposits in the past 15 years of your life?

- _____ %, in the US
- _____ %, for the country you spent most of your time other than the US, specify country: (display if applicable)

10. What would you say is the average annual inflation rate in the past 15 years of your life?

- _____ %, in the US
- _____ %, for the country you spent most of your time other than the US, specify country: (display if applicable)

11. What do you expect inflation rate in the US to be in the next 12 months?

(break)

12. a. Please roughly estimate the value of your household's total financial wealth (e.g. bank deposits, stocks, bonds, holdings in mutual funds and pension funds, etc.) DO NOT including the value of your current residence in total financial wealth if you are a home owner. Which of the following categories best describes your estimate?

- Below 0 (In debt)
- \$0--\$10,000
- \$10,000--\$50,000

- \$50,000--\$100,000
- \$100,000--\$200,000
- \$200,000--\$500,000
- \$500,000+

b. What is the rough percentage of your household's total financial wealth saved in banks? What is the rough percentage invested in the stock market (including direct holdings of stocks, as well as investments through stock mutual funds and through retirement savings plans)? DO NOT including the value of your current residence in total financial wealth if you are a home owner.

- _____% in banks.
- _____% in the stock market.
- _____% in other financial assets.

(break)

13. Consider the following 6 lotteries below. In each lottery, you have an equal chance of obtaining the amount of money on the left or the amount of money on the right. Which lottery among the ones below would you choose if you are to receive money based on the lottery outcome?

Please select exactly one of the six lotteries:

- a) 50% chance receive \$22 and 50% chance receive \$22
- b) 50% chance receive \$30 and 50% chance receive \$18
- c) 50% chance receive \$38 and 50% chance receive \$14
- d) 50% chance receive \$46 and 50% chance receive \$10
- e) 50% chance receive \$54 and 50% chance receive \$6
- f) 50% chance receive \$60 and 50% chance receive \$0

(break)

The survey is now completed. Do you have any comments and suggestions for the survey? Did you find anything to be unclear or confusing?

Your investment outcome in Section I is:

Investment A (fixed returns):

Realized Returns: 5% (i.e. for every Franc invested, you get 1.05 Francs)

Investment: _____ Francs. Outcome: _____ Francs.

Investment B (uncertain returns):

Realized Returns: x% (i.e. for every Franc invested, you get 1+x% Francs)

Investment: _____ Francs. Outcome: _____ Francs.

Final Payoff: _____ + _____ = _____ Francs.

Exchange Rate: 4950 Francs/Dollar.

One in ten participants will be randomly selected to receive bonus payment proportional to the final investment payoff. If you are chosen, your bonus payment will be: \$ _____.

You will receive the Spangler lunch voucher for your participation within 3 days in your mailbox in Spangler basement. To make sure you receive the lunch voucher, please leave your Spangler mailbox number below: [].

We will send you a notification within 3 days about whether you are chosen to receive the bonus payment. To receive notification about payments, please leave your HBS email address below: [] We will also use the email address to verify that you are current MBA student at HBS.

Since we would like to simulate an annual investment horizon, if you were to receive a bonus payment, the bonus payment will be delivered in approximately one year. We deeply appreciate your understanding. According to Harvard policy, payments more than \$100 must be paid by check. If you are chosen to receive the bonus payment, you will get it by check, and the notification email includes details of the delivery of the check.

Make sure to save or screenshot this page for your record. If you have any questions, please feel free to contact us via email at yma@hbs.edu (Yueran Ma) or cawang@hbs.edu (Carmen Wang).

Thank you very much for your participation!

Sample Survey for Experiment T1 (Mapping Gradient, MTurk, Incentivized)

Below is the survey presented to participants in Treatment Group 3. Section I contains the main question for investment decision making. Section II contains additional demographic questions. Participants in other treatment groups answer the same questions in Section II, but in Section I they make investment decisions among two assets with different levels of returns. The table below summarizes the parameter values in different treatment groups.

	Return of Investment A	Avg Return of Investment B	Volatility of Investment B
Treatment 1	-1%	4%	18%
Treatment 2	0%	5%	18%
Treatment 3	1%	6%	18%
Treatment 4	3%	8%	18%
Treatment 5	5%	10%	18%
Treatment 6	10%	15%	18%
Treatment 7	15%	20%	18%

Thank you very much for your participation. This survey will take you about 15 minutes to complete.

You will receive \$0.7 base payment plus any bonus you earn in the HIT. One in ten participants will receive the bonus payment. The bonus will be on the scale of \$12, but the precise amount will depend on your investment decision and outcome.

Section I (This section has bonus payments.)

In this section, you will make a decision about allocating your money in different investments. At the beginning, you have 100,000 units of currency, called “Francs”. There are two available investments, which are described below. You can choose to allocate your money between these two investments. One in ten participants will be randomly selected to receive bonus payments proportional to the investment payoff in Francs, with every 8,950 Francs being converted into one dollar of bonus payment.

Your investment payoff and the corresponding bonus size will be displayed at the end of this survey. The base payment will be distributed within one week after the completion of this HIT. If you were to receive a bonus payment, the bonus payment will be distributed with your base payment via MTurk. Details of the timing and method of payment will be redisplayed at the end of the survey to help you keep records. Please contact us at lianchen@mit.edu (Chen Lian), yueranma@g.harvard.edu (Yueran Ma), or carmenwang@fas.harvard.edu (Carmen Wang), or through MTurk if you have any questions about payments.

Investment A: Investment A’s return is 5% for sure.

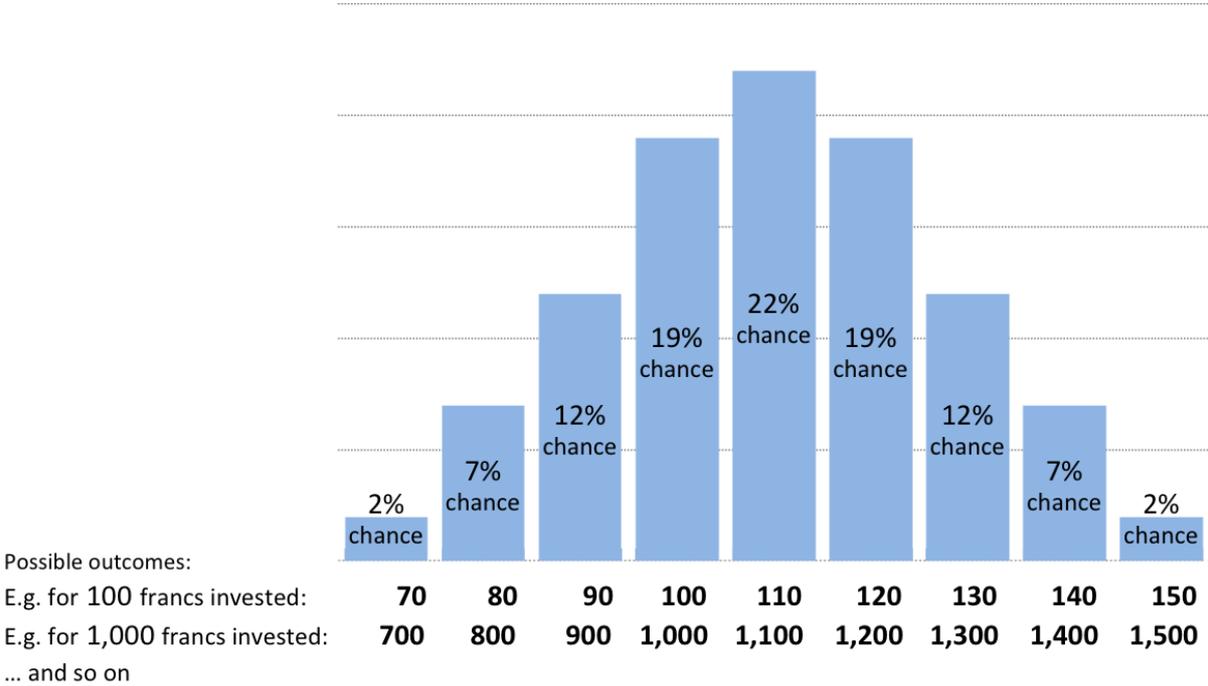
For example, suppose you put 100 Francs into this investment, you will get 105 Francs.

For another example, suppose you put 1,000 Francs into this investment, you will get 1,050 Francs.

Investment B: Investment B has nine possible outcomes. Its average return is 10%. The volatility of the investment return is 18%. The nine possible outcomes are shown by the chart below, where the number inside each bar indicates the probability of that particular outcome.

For example, suppose you put 100 Francs into this investment, you will get 110 Francs on average. There is uncertainty about the exact amount of money you will get. The first row of the chart below describes the nine possible outcomes: there is a 19% chance that you will get 120 Francs, there is a 12% chance that you will get 90 Francs, etc.

For another example, suppose you put 1,000 Francs into this investment, you will get 1,100 Francs on average. There is uncertainty about the exact amount of money you will get. The second row of the chart below describes the nine possible outcomes: there is a 19% chance that you will get 1,200 Francs, there is a 12% chance that you will get 900 Francs, etc.



We will simulate the outcome of Investment B based on the probability distribution described above. We will then calculate your investment payoffs according to your investment decision. Your payoffs in terms of Francs will be displayed at the end of the survey.

Please carefully consider the above investments, and provide an answer that best describes your preferences. Once you have made a decision and proceeded to the next page of the survey, you cannot return and change your previous answers.

Your decision:

I will invest my 100,000 Francs as follows:
 (Please fill in the percentage of your endowment allocated to each investment. Your choices need to add up to 100%.)

Investment A: _____ %;

Investment B: _____ %.

(page break)

Could you give a brief explanation of your investment decision? Specifically, list some reasons behind putting this amount of money into Investments A & B, but not other amounts.

(page break)

Section II. Background Information

The investment decision section is now over. In the following, we would like to ask a few questions about yourself and your opinions to help us in our research.

1. What is your gender?
 - Male
 - Female
2. What is your age?
3. What is the highest level of educational degree that you hold?
 - Graduate school (e.g. Masters, Ph.D., Post-doctoral degrees)
 - College
 - High school
 - Below high school
 - Other ____
4. Where have you been living in the past 15 years of your life?
 - Mostly in the US
 - A significant number of years both in and outside the US
 - Mostly outside the US

(break)

5. Do you have any experience investing in financial assets (e.g. stocks, bonds, mutual funds, pension funds, etc.)?
 - I have extensive experience investing in financial assets.
 - I have some experience.
 - I have very limited experience.
 - I have no experience at all.
6. What would you say is the minimum acceptable return on your savings? By minimum acceptable return we mean the level of return below which you will feel very uncomfortable.

7. If you were to make some investments with your savings, how would you describe your risk tolerance?

- I am very risk averse and conservative.
- I am somewhat risk averse but I am willing to hold some risky assets.
- I am not very risk averse and I am willing to hold a decent amount of risky assets.
- I am very risk seeking and I have strong preferences for risky assets.

8. Are you currently saving for retirement?

- Yes
- No

9. a. Do you currently make the following types of payments

- Fixed mortgage payments
- Fixed payments on other types of loans, such as auto loans, consumer loans, student loans, etc. Please specify: _____
- Other recurring expenses that are large relative to your income, such as tuition for you or family members, medical bills, rents, etc. Please specify: _____

b. Please estimate each of the following payments you make every month as a fraction of your total monthly income: (display if applicable)

- _____ % of monthly income on mortgage payments
- _____ % of monthly income on (non-mortgage loans)
- _____ % of monthly income on (other recurring expenses)

(break)

10. What would you say is the average annual interest rate on bank deposits in the past 15 years of your life?

- US ___%
- Not US ___%
- I do not understand this question

11. What would you say is the average annual inflation rate in the past 15 years of your life?

- US ___%
- Not US ___%
- I do not understand this question

12. What do you think will be the annual rate of inflation in the US in the next 12 months?

13. a. Please roughly estimate the value of your household's total financial wealth (e.g. bank deposits, stocks, bonds, holdings in mutual funds and pension funds, etc.) DO NOT including the value of your current residence in total financial wealth if you are a home owner. Which of the following categories best describes your estimate?

- Below 0 (In debt)
- \$0--\$10,000

- \$10,000--\$50,000
- \$50,000--\$100,000
- \$100,000--\$200,000
- \$200,000--\$500,000
- \$500,000+

b. What is the rough percentage of your household's total financial wealth saved in banks? What is the rough percentage invested in the stock market (including direct holdings of stocks, as well as investments through stock mutual funds and through retirement savings plans)? DO NOT including the value of your current residence in total financial wealth if you are a home owner.

- _____ % in banks.
- _____ % in the stock market.
- _____ % in other financial assets.

(break)

14. Consider the following 6 lotteries below. In each lottery, you have an equal chance of obtaining the amount of money on the left or the amount of money on the right. Which lottery among the ones below would you choose if you are to receive money based on the lottery outcome?

Please select exactly one of the six lotteries:

- a) 50% chance receive \$22 and 50% chance receive \$22
- b) 50% chance receive \$30 and 50% chance receive \$18
- c) 50% chance receive \$38 and 50% chance receive \$14
- d) 50% chance receive \$46 and 50% chance receive \$10
- e) 50% chance receive \$54 and 50% chance receive \$6
- f) 50% chance receive \$60 and 50% chance receive \$0

(break)

The survey is now completed. Do you have any comments and suggestions for the survey? Did you find anything to be unclear or confusing?

(break)

Your investment outcome in Section I is:

Investment A (fixed returns):

Realized Returns: 5% (i.e. for every Franc invested, you get 1.05 Francs)

Investment: _____ Francs. Outcome: _____ Francs.

Investment B (uncertain returns):

Realized Returns: $x\%$ (i.e. for every Franc invested, you get $1+x\%$ Francs)

Investment: _____ Francs. Outcome: _____ Francs.

Final Payoff: _____ + _____ = _____ Francs.

One in ten randomly chosen participants will receive bonus payment proportional to the final investment payoff. If you are chosen, your bonus payment will be: \$_____.

If you were to receive a bonus payment, the bonus payment will be distributed with your base payment.

You will receive your payments within one week.

Make sure to save this page for your record. If you have any questions, please feel free to contact us through MTurk or via email at lianchen@mit.edu (Chen Lian), yueranma@g.harvard.edu (Yueran Ma), carmenwang@fas.harvard.edu (Carmen Wang).

(break)

Thank you very much for your participation.

Your validation code is:

xxxxxxx

To receive payment for participating, return to the Mechanical Turk window, enter this validation code, then click "Submit".

Sample Survey for Experiment T2 (History Dependence, MTurk, Incentivized)

Below is the survey presented to participants in Treatment Group 1. Section I contains the main question for investment decision making. Section II contains additional demographic questions. Participants in Treatment Group 2 answer the same questions in Section II, but in Section I they answer Question 2 first, followed by Question 1.

Thank you very much for your participation. This survey will take you about 20 minutes to complete.

You will receive \$1 base payment plus any bonus you earn in the HIT. One in ten participants will receive the bonus payment. The bonus will be on the scale of \$12, but the precise amount will depend on your investment decision and outcome.

Section I (This section has bonus payments.)

In this section, you will make a few rounds of decisions about allocating your money in different investments. In every round, you will have 100,000 units of currency, called “Francs”. There will be two available investments in each round, and you can choose to allocate your money between these two investments. One in ten participants will be randomly selected to receive bonus payments proportional to the investment payoff in Francs from one randomly selected round, with every 8,950 Francs being converted into one dollar of bonus payment.

Your investment payoff from each round and the corresponding bonus size will be displayed at the end of this survey. The end of the survey will also display which round is chosen for your bonus payment if you were a bonus recipient. The base payment will be distributed within one week after the completion of this HIT. If you were to receive a bonus payment, the bonus payment will be distributed with your base payment via MTurk. Details of the timing and method of payment will be redisplayed at the end of the survey to help you keep records. Please contact us at lianchen@mit.edu (Chen Lian), yueranma@g.harvard.edu (Yueran Ma), or carmenwang@fas.harvard.edu (Carmen Wang), or through MTurk if you have any questions about payments.

Section 1.1 (Question 1)

In this section, you have 100,000 Francs to invest in the following two assets.

Investment A: Investment A’s return is 5% for sure.

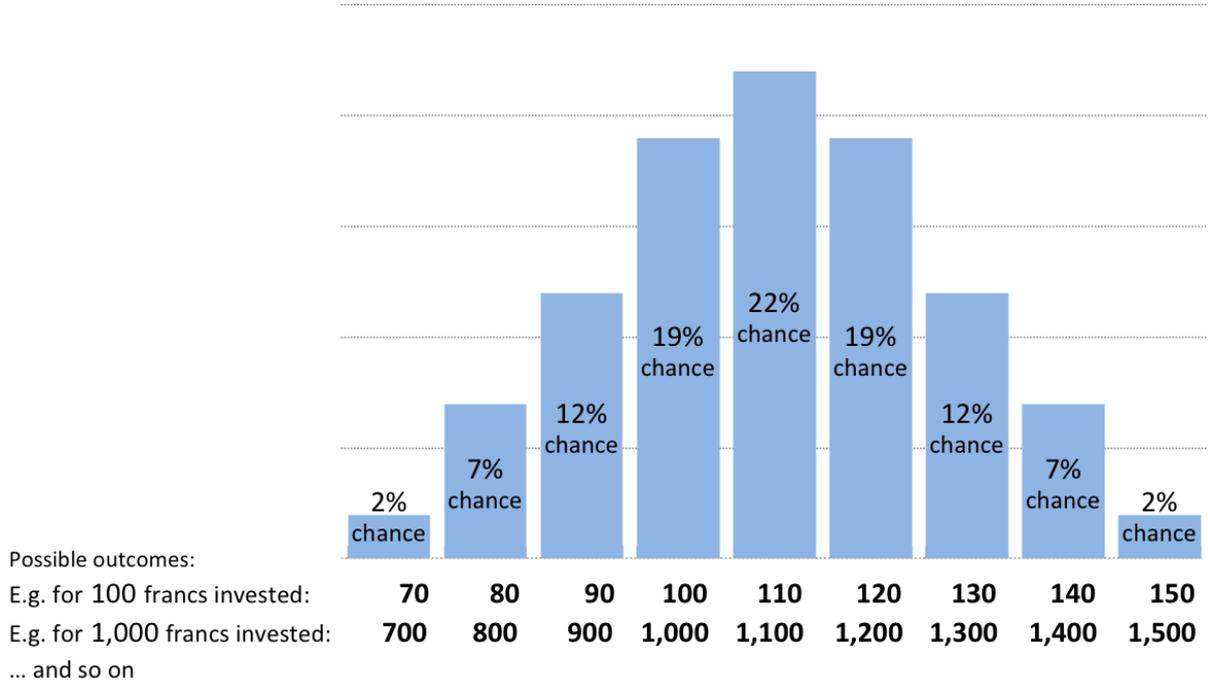
For example, suppose you put 100 Francs into this investment, you will get 105 Francs.

For another example, suppose you put 1,000 Francs into this investment, you will get 1,050 Francs.

Investment B: Investment B has nine possible outcomes. Its average return is 10%. The volatility of the investment return is 18%. The nine possible outcomes are shown by the chart below, where the number inside each bar indicates the probability of that particular outcome.

For example, suppose you put 100 Francs into this investment, you will get 110 Francs on average. There is uncertainty about the exact amount of money you will get. The first row of the chart below describes the nine possible outcomes: there is a 19% chance that you will get 120 Francs, there is a 12% chance that you will get 90 Francs, etc.

For another example, suppose you put 1,000 Francs into this investment, you will get 1,100 Francs on average. There is uncertainty about the exact amount of money you will get. The second row of the chart below describes the nine possible outcomes: there is a 19% chance that you will get 1,200 Francs, there is a 12% chance that you will get 900 Francs, etc.



We will simulate the outcome of Investment B based on the probability distribution described above. We will then calculate your investment payoffs according to your investment decision. Your payoffs in terms of Francs will be displayed at the end of the survey.

Please carefully consider the above investments, and provide an answer that best describes your preferences. Once you have made a decision and proceeded to the next page of the survey, you cannot return and change your previous answers.

Your decision:

I will invest my 100,000 Francs as follows:

(Please fill in the percentage of your endowment allocated to each investment. Your choices need to add up to 100%.)

Investment A: _____ %;

Investment B: _____ %.

(page break)

Could you give a brief explanation of your investment decision? Specifically, list some reasons behind putting this amount of money into Investments A & B, but not other amounts.

(page break)

Section 1.2 (Question 2)

In this section, you again have 100,000 Francs to invest. There are still two investments available, but the payoffs are slightly different. The investment outcome in this section is independent from the outcome in the previous section.

Investment A: Investment A's return is 1% for sure.

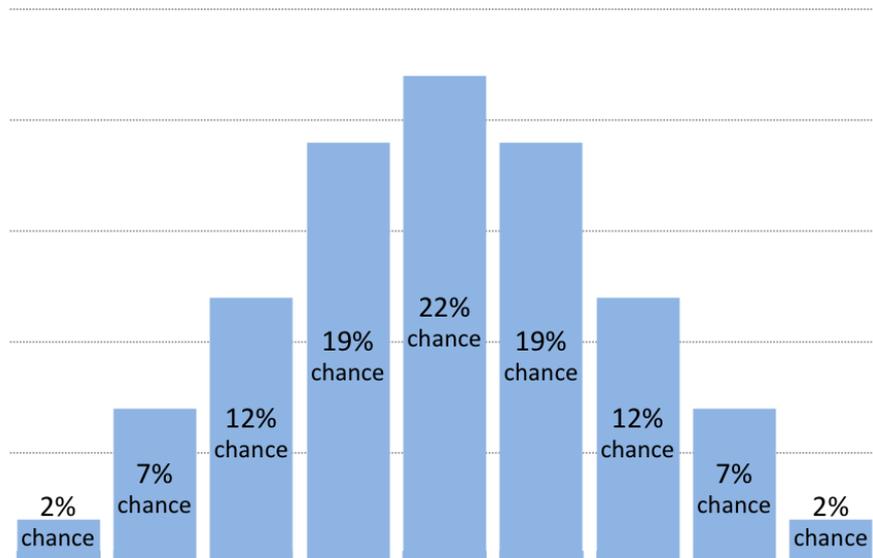
For example, suppose you put 100 Francs into this investment, you will get 101 Francs.

For another example, suppose you put 1,000 Francs into this investment, you will get 1,010 Francs.

Investment B: Investment B has nine possible outcomes. Its average return is 6%. The volatility of the investment return is 18%. The nine possible outcomes are shown by the chart below, where the number inside each bar indicates the probability of that particular outcome.

For example, suppose you put 100 Francs into this investment, you will get 106 Francs on average. There is uncertainty about the exact amount of money you will get. The first row of the chart below describes the nine possible outcomes: there is a 19% chance that you will get 114 Francs, there is a 12% chance that you will get 86 Francs, etc.

For another example, suppose you put 1,000 Francs into this investment, you will get 1,060 Francs on average. There is uncertainty about the exact amount of money you will get. The second row of the chart below describes the nine possible outcomes: there is a 19% chance that you will get 1,140 Francs, there is a 12% chance that you will get 860 Francs, etc.



Possible outcomes:

E.g. for 100 francs invested:

66 76 86 96 106 116 126 136 146

E.g. for 1,000 francs invested:

660 760 860 960 1,060 1,160 1,260 1,360 1,460

... and so on

We will simulate the outcome of Investment B based on the probability distribution described above. We will then calculate your investment payoffs according to your investment decision. Your payoffs in terms of Francs will be displayed at the end of the survey.

Please carefully consider the above investments, and provide an answer that best describes your preferences. Once you have made a decision and proceeded to the next page of the survey, you cannot return and change your previous answers.

Your decision:

I will invest my 100,000 Francs as follows:

(Please fill in the percentage of your endowment allocated to each investment. Your choices need to add up to 100%.)

Investment A: _____ %;

Investment B: _____ %.

(page break)

Could you give a brief explanation of your investment decision? Specifically, list some reasons behind putting this amount of money into Investments A & B, but not other amounts.

If your investment decisions in Section 1.1 and Section 1.2 are different, could you explain why?

(page break)

Section II. Background Information

The investment decision section is now over. In the following, we would like to ask a few questions about yourself and your opinions to help us in our research.

1. What is your gender?
 - Male
 - Female
2. What is your age?
3. What is the highest level of educational degree that you hold?
 - Graduate school (e.g. Masters, Ph.D., Post-doctoral degrees)
 - College
 - High school
 - Below high school
 - Other ____
4. Where have you been living in the past 15 years of your life?
 - Mostly in the US
 - A significant number of years both in and outside the US
 - Mostly outside the US

(break)

5. Do you have any experience investing in financial assets (e.g. stocks, bonds, mutual funds, pension funds, etc.)?
 - I have extensive experience investing in financial assets.
 - I have some experience.
 - I have very limited experience.
 - I have no experience at all.
6. What would you say is the minimum acceptable return on your savings? By minimum acceptable return we mean the level of return below which you will feel very uncomfortable.
7. If you were to make some investments with your savings, how would you describe your risk tolerance?
 - I am very risk averse and conservative.
 - I am somewhat risk averse but I am willing to hold some risky assets.
 - I am not very risk averse and I am willing to hold a decent amount of risky assets.
 - I am very risk seeking and I have strong preferences for risky assets.
8. Are you currently saving for retirement?

- Yes
- No

9. a. Do you currently make the following types of payments

- Fixed mortgage payments
- Fixed payments on other types of loans, such as auto loans, consumer loans, student loans, etc. Please specify: _____
- Other recurring expenses that are large relative to your income, such as tuition for you or family members, medical bills, rents, etc. Please specify: _____

b. Please estimate each of the following payments you make every month as a fraction of your total monthly income: (display if applicable)

- _____ % of monthly income on mortgage payments
- _____ % of monthly income on (non-mortgage loans)
- _____ % of monthly income on (other recurring expenses)

(break)

10. What would you say is the average annual interest rate on bank deposits in the past 15 years of your life?

- US _____%
- Not US _____%
- I do not understand this question

11. What would you say is the average annual inflation rate in the past 15 years of your life?

- US _____%
- Not US _____%
- I do not understand this question

12. What do you think will be the annual rate of inflation in the US in the next 12 months?

13. a. Please roughly estimate the value of your household's total financial wealth (e.g. bank deposits, stocks, bonds, holdings in mutual funds and pension funds, etc.) DO NOT including the value of your current residence in total financial wealth if you are a home owner. Which of the following categories best describes your estimate?

- Below 0 (In debt)
- \$0--\$10,000
- \$10,000--\$50,000
- \$50,000--\$100,000
- \$100,000--\$200,000
- \$200,000--\$500,000
- \$500,000+

b. What is the rough percentage of your household's total financial wealth saved in banks?

What is the rough percentage invested in the stock market (including direct holdings of stocks, as well as investments through stock mutual funds and through retirement savings plans)? DO NOT including the value of your current residence in total financial wealth if you are a home owner.

- _____ % in banks.
- _____ % in the stock market.
- _____ % in other financial assets.

(break)

14. Consider the following 6 lotteries below. In each lottery, you have an equal chance of obtaining the amount of money on the left or the amount of money on the right. Which lottery among the ones below would you choose if you are to receive money based on the lottery outcome?

Please select exactly one of the six lotteries:

- a) 50% chance receive \$22 and 50% chance receive \$22
- b) 50% chance receive \$30 and 50% chance receive \$18
- c) 50% chance receive \$38 and 50% chance receive \$14
- d) 50% chance receive \$46 and 50% chance receive \$10
- e) 50% chance receive \$54 and 50% chance receive \$6
- f) 50% chance receive \$60 and 50% chance receive \$0

(break)

The survey is now completed. Do you have any comments and suggestions for the survey? Did you find anything to be unclear or confusing?

(break)

Your investment outcome in Section 1.1 is:

Investment A (fixed returns):

Realized Returns: 5% (i.e. for every Franc invested, you get 1.05 Francs)

Investment: _____ Francs. Outcome: _____ Francs.

Investment B (uncertain returns):

Realized Returns: x% (i.e. for every Franc invested, you get 1+x% Francs)

Investment: _____ Francs. Outcome: _____ Francs.

Total Payoff in Section 1.1: _____ + _____ = _____ Francs.

Your investment outcome in Section 1.2 is:

Investment A (fixed returns):

Realized Returns: 1% (i.e. for every Franc invested, you get 1.01 Francs)

Investment: _____ Francs. Outcome: _____ Francs.

Investment B (uncertain returns):

Realized Returns: x% (i.e. for every Franc invested, you get 1+x% Francs)

Investment: _____ Francs. Outcome: _____ Francs.

Total Payoff in Section 1.2: _____ + _____ = _____ Francs.

One in ten randomly chosen participants will receive bonus payment proportional to the final investment payoff. If you are chosen, your bonus payment will be based on investment outcomes in Section _____, and it will be \$_____.

If you were to receive a bonus payment, the bonus payment will be distributed with your base payment.

You will receive your payments within one week.

Make sure to save this page for your record. If you have any questions, please feel free to contact us through MTurk or via email at lianchen@mit.edu (Chen Lian), yueranma@g.harvard.edu (Yueran Ma), carmenwang@fas.harvard.edu (Carmen Wang).

(break)

Thank you very much for your participation.

Your validation code is:

xxxxxxx

To receive payment for participating, return to the Mechanical Turk window, enter this validation code, then click “Submit”.

Sample Surveys for Experiment T3 (Gross Framing, MTurk, Incentivized)

Below is the survey presented to participants in Treatment Group 1 (high interest rate condition). Section I contains the main question of investment decision making. Section II contains additional demographic questions. Participants in Treatment Group 2 (low interest rate condition) answer the same questions in Section II, but in Section I they make investment decisions among two assets with different returns.

This experiment was launched together with Experiment T1.

Thank you very much for your participation. This survey will take you about 15 minutes to complete.

You will receive \$0.7 base payment plus any bonus you earn in the HIT. One in ten participants will receive the bonus payment. The bonus will be on the scale of \$12, but the precise amount will depend on your investment decision and outcome.

Section I (This section has bonus payments.)

In this section, you will make a decision about allocating your money in different investments. At the beginning, you have 100,000 units of currency, called “Francs”. There are two available investments, which are described below. You can choose to allocate your money between these two investments. One in ten participants will be randomly selected to receive bonus payments proportional to the investment payoff in Francs, with every 8,950 Francs being converted into one dollar of bonus payment.

Your investment payoff and the corresponding bonus size will be displayed at the end of this survey. The base payment will be distributed within one week after the completion of this HIT. If you were to receive a bonus payment, the bonus payment will be distributed with your base payment via MTurk. Details of the timing and method of payment will be redisplayed at the end of the survey to help you keep records. Please contact us at lianchen@mit.edu (Chen Lian), yueranma@g.harvard.edu (Yueran Ma), or carmenwang@fas.harvard.edu (Carmen Wang), or through MTurk if you have any questions about payments.

Baseline Framing (participants see the following if they are assigned to the baseline framing conditions):

Investment A: Investment A’s annual return is 5% for sure.

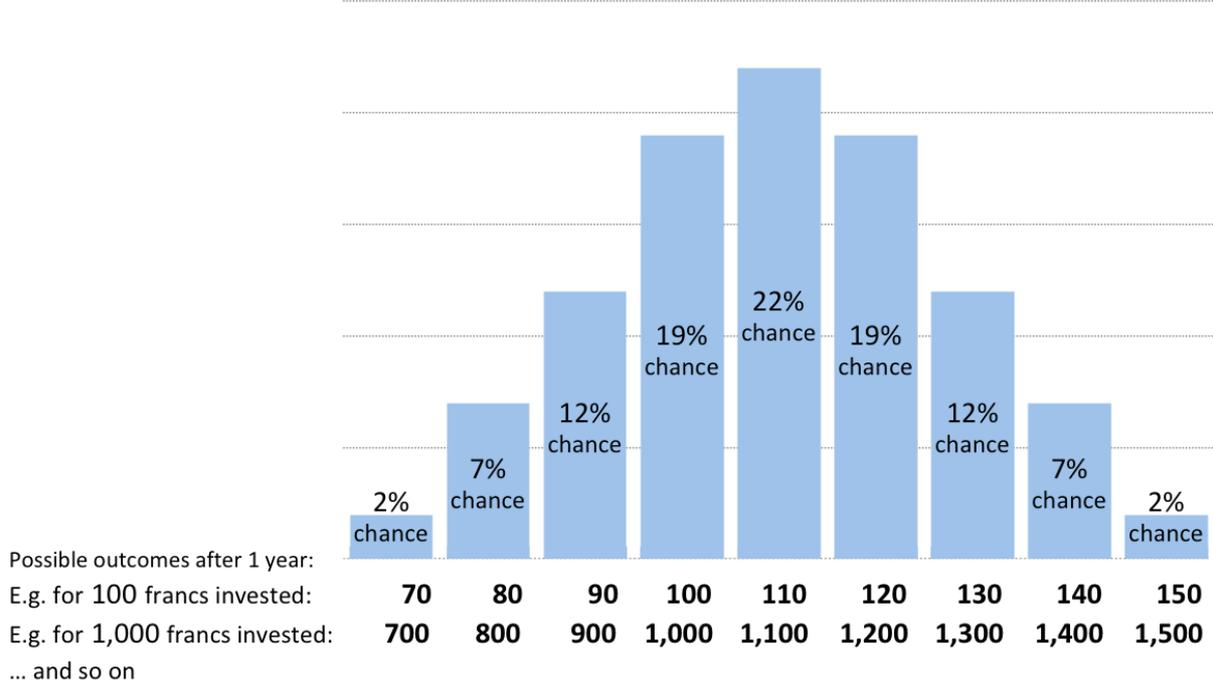
For example, suppose you put 100 Francs into this investment at the beginning of the year, you will get 105 Francs by the end of the year.

For another example, suppose you put 1,000 Francs into this investment at the beginning of the year, you will get 1,050 Francs by the end of the year.

Investment B: Investment B has nine possible outcomes. Its average annual return is 10%. The volatility of the investment return is 18%. The nine possible outcomes are shown by the chart below, where the number inside each bar indicates the probability of that particular outcome.

For example, suppose you put 100 Francs into this investment at the beginning of the year, you will get 110 Francs on average by the end of the year. There is uncertainty about the exact amount of money you will get. The first row of the chart below describes the nine possible outcomes: there is a 19% chance that you will get 120 Francs by the end of the year, there is a 12% chance that you will get 90 Francs by the end of the year, etc.

For another example, suppose you put 1,000 Francs into this investment at the beginning of the year, you will get 1,100 Francs on average by the end of the year. There is uncertainty about the exact amount of money you will get. The second row of the chart below describes the nine possible outcomes: there is a 19% chance that you will get 1,200 Francs by the end of the year, there is a 12% chance that you will get 900 Francs by the end of the year, etc.



We will simulate the outcome of Investment B based on the probability distribution described above. We will then calculate your investment payoffs according to your investment decision. Your payoffs in terms of Francs will be displayed at the end of the survey.

Please carefully consider the above investments, and provide an answer that best describes your preferences. Once you have made a decision and proceeded to the next page of the survey, you cannot return and change your previous answers.

Your decision:

I will invest my 100,000 Francs as follows:
 (Please fill in the percentage of your endowment allocated to each investment. Your choices need to add up to 100%.)
 Investment A: _____%;
 Investment B: _____%.

(page break)

Could you give a brief explanation of your investment decision? Specifically, list some reasons behind putting this amount of money into Investments A & B, but not other amounts.

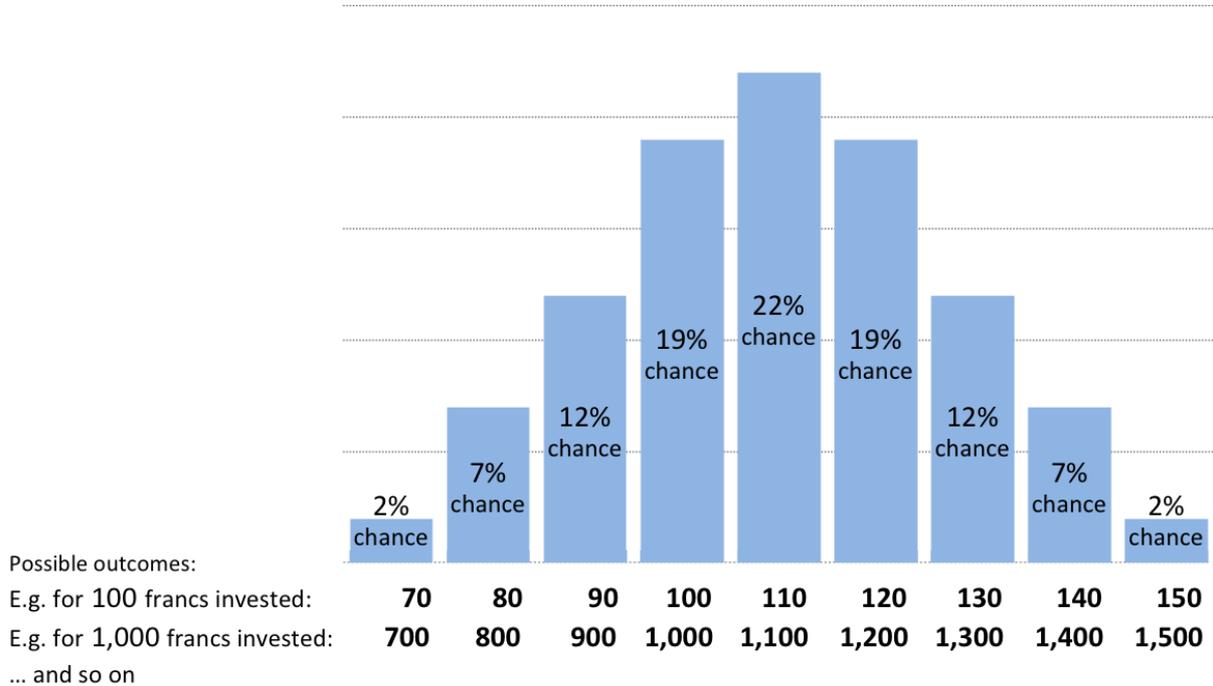
Gross Framing (participants see the following if they are assigned to the gross framing conditions):

Investment A: For every Franc you put into Investment A, you will get 1.05 Francs with certainty.

Investment B: Investment B has nine possible outcomes. For every Franc you put into Investment B, you will get 1.1 Francs on average. The volatility of the investment payoff is 18%. The chart below shows the nine possible outcomes, where the number inside each bar indicates the probability of that particular outcome.

For example, suppose you put 100 Francs into this investment, you will get 110 Francs on average. There is uncertainty about the exact amount of money you will get. The first row of the chart below describes the nine possible outcomes: there is a 19% chance that you will get 120 Francs, there is a 12% chance that you will get 90 Francs, etc.

For another example, suppose you put 1,000 Francs into this investment, you will get 1,100 Francs on average. There is uncertainty about the exact amount of money you will get. The second row of the chart below describes the nine possible outcomes: there is a 19% chance that you will get 1,200 Francs, there is a 12% chance that you will get 900 Francs, etc.



We will simulate the outcome of Investment B based on the probability distribution described above. We will then calculate your investment payoffs according to your investment decision. Your payoffs in terms of Francs will be displayed at the end of the survey.

Please carefully consider the above investments, and provide an answer that best describes your preferences. Once you have made a decision and proceeded to the next page of the survey, you cannot return and change your previous answers.

Your decision:

I will invest my 100,000 Francs as follows:

(Please fill in the percentage of your endowment allocated to each investment. Your choices need to add up to 100%.)

Investment A: _____ %;

Investment B: _____ %.

(page break)

Could you give a brief explanation of your investment decision? Specifically, list some reasons behind putting this amount of money into Investments A & B, but not other amounts.

Net Framing (participants see the following if they are assigned to the net framing conditions):

Investment A: Investment A's return is 5% for sure.

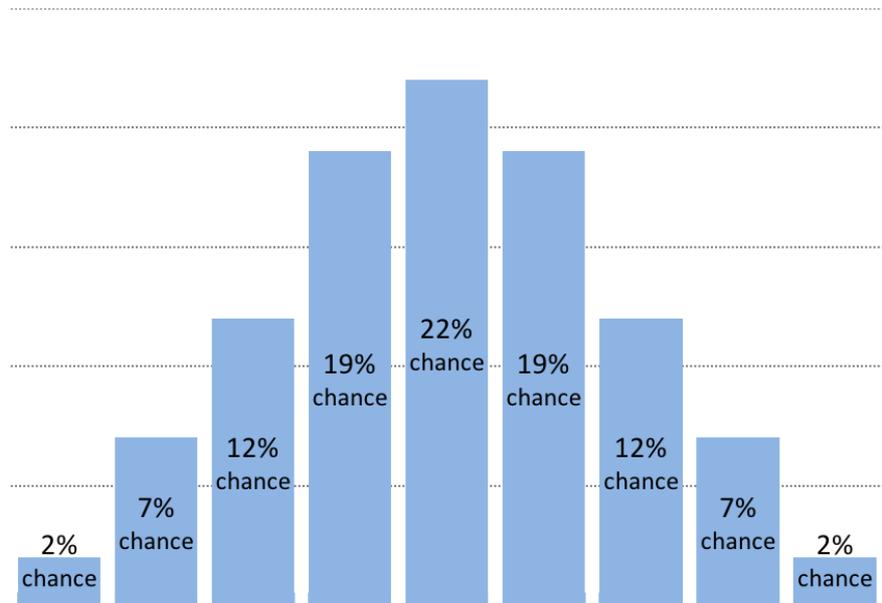
For example, suppose you put 100 Francs into this investment, you will earn 5 more Francs.

For another example, suppose you put 1,000 Francs into this investment, you will earn 50 more Francs.

Investment B: Investment B has nine possible outcomes. Its average return is 10%. The volatility of the investment payoff is 18%. The chart below shows the nine possible outcomes, where the number inside each bar indicates the probability of that particular outcome.

For example, suppose you put 100 Francs into this investment, you will earn 10 more Francs on average. There is uncertainty about the exact amount of money you will get. The first row of the chart below describes the nine possible outcomes: there is a 19% chance that you will earn 20 more Francs, there is a 12% chance that you will lose 10 Francs, etc.

For another example, suppose you put 1,000 Francs into this investment, you will earn 100 Francs on average. There is uncertainty about the exact amount of money you will get. The second row of the chart below describes the nine possible outcomes: there is a 19% chance that you will get earn 200 more Francs, there is a 12% chance that you will lose 100 Francs, etc.



Possible outcomes:

E.g. for 100francs invested: -30 -20 -10 0 +10 +20 +30 +40 +50

E.g. for 1,000francs invested: -300 -200 -100 0 +100 +200 +300 +400 +500

... and so on

We will simulate the outcome of Investment B based on the probability distribution described above. We will then calculate your investment payoffs according to your investment decision. Your payoffs in terms of Francs will be displayed at the end of the survey.

Please carefully consider the above investments, and provide an answer that best describes your preferences. Once you have made a decision and proceeded to the next page of the survey, you cannot return and change your previous answers.

Your decision:

I will invest my 100,000 Francs as follows:

(Please fill in the percentage of your endowment allocated to each investment. Your choices need to add up to 100%.)

Investment A: _____ %;

Investment B: _____ %.

(page break)

Could you give a brief explanation of your investment decision? Specifically, list some reasons behind putting this amount of money into Investments A & B, but not other amounts.

The rest is the same for all participants.

Section II. Background Information

The investment decision section is now over. In the following, we would like to ask a few

questions about yourself and your opinions to help us in our research.

1. What is your gender?
 - Male
 - Female
2. What is your age?
3. What is the highest level of educational degree that you hold?
 - Graduate school (e.g. Masters, Ph.D., Post-doctoral degrees)
 - College
 - High school
 - Below high school
 - Other ____
4. Where have you been living in the past 15 years of your life?
 - Mostly in the US
 - A significant number of years both in and outside the US
 - Mostly outside the US

(break)

5. Do you have any experience investing in financial assets (e.g. stocks, bonds, mutual funds, pension funds, etc.)?
 - I have extensive experience investing in financial assets.
 - I have some experience.
 - I have very limited experience.
 - I have no experience at all.
6. What would you say is the minimum acceptable return on your savings? By minimum acceptable return we mean the level of return below which you will feel very uncomfortable.
7. If you were to make some investments with your savings, how would you describe your risk tolerance?
 - I am very risk averse and conservative.
 - I am somewhat risk averse but I am willing to hold some risky assets.
 - I am not very risk averse and I am willing to hold a decent amount of risky assets.
 - I am very risk seeking and I have strong preferences for risky assets.
8. Are you currently saving for retirement?
 - Yes
 - No
9. a. Do you currently make the following types of payments

- Fixed mortgage payments
- Fixed payments on other types of loans, such as auto loans, consumer loans, student loans, etc. Please specify: _____
- Other recurring expenses that are large relative to your income, such as tuition for you or family members, medical bills, rents, etc. Please specify: _____

b. Please estimate each of the following payments you make every month as a fraction of your total monthly income: (display if applicable)

- _____ % of monthly income on mortgage payments
- _____ % of monthly income on (non-mortgage loans)
- _____ % of monthly income on (other recurring expenses)

(break)

10. What would you say is the average annual interest rate on bank deposits in the past 15 years of your life?

- US ____%
- Not US ____%
- I do not understand this question

11. What would you say is the average annual inflation rate in the past 15 years of your life?

- US ____%
- Not US ____%
- I do not understand this question

12. What do you think will be the annual rate of inflation in the US in the next 12 months?

13. a. Please roughly estimate the value of your household's total financial wealth (e.g. bank deposits, stocks, bonds, holdings in mutual funds and pension funds, etc.) DO NOT including the value of your current residence in total financial wealth if you are a home owner. Which of the following categories best describes your estimate?

- Below 0 (In debt)
- \$0--\$10,000
- \$10,000--\$50,000
- \$50,000--\$100,000
- \$100,000--\$200,000
- \$200,000--\$500,000
- \$500,000+

b. What is the rough percentage of your household's total financial wealth saved in banks? What is the rough percentage invested in the stock market (including direct holdings of stocks, as well as investments through stock mutual funds and through retirement savings plans)? DO NOT including the value of your current residence in total financial wealth if you are a home owner.

- _____ % in banks.
- _____ % in the stock market.

- _____% in other financial assets.

(break)

14. Consider the following 6 lotteries below. In each lottery, you have an equal chance of obtaining the amount of money on the left or the amount of money on the right. Which lottery among the ones below would you choose if you are to receive money based on the lottery outcome?

Please select exactly one of the six lotteries:

- a) 50% chance receive \$22 and 50% chance receive \$22
- b) 50% chance receive \$30 and 50% chance receive \$18
- c) 50% chance receive \$38 and 50% chance receive \$14
- d) 50% chance receive \$46 and 50% chance receive \$10
- e) 50% chance receive \$54 and 50% chance receive \$6
- f) 50% chance receive \$60 and 50% chance receive \$0

(break)

The survey is now completed. Do you have any comments and suggestions for the survey? Did you find anything to be unclear or confusing?

(break)

Your investment outcome in Section I is:

Investment A (fixed returns):

Realized Returns: 5% (i.e. for every Franc invested, you get 1.05 Francs)

Investment: _____ Francs. Outcome: _____ Francs.

Investment B (uncertain returns):

Realized Returns: x% (i.e. for every Franc invested, you get 1+x% Francs)

Investment: _____ Francs. Outcome: _____ Francs.

Final Payoff: _____ + _____ = _____ Francs.

One in ten randomly chosen participants will receive bonus payment proportional to the final investment payoff. If you are chosen, your bonus payment will be: \$_____.

If you were to receive a bonus payment, the bonus payment will be distributed with your base payment.

You will receive your payments within one week.

Make sure to save this page for your record. If you have any questions, please feel free to contact us through MTurk or via email at lianchen@mit.edu (Chen Lian), yueranma@g.harvard.edu (Yueran Ma), carmenwang@fas.harvard.edu (Carmen Wang).

(break)

Thank you very much for your participation.

Your validation code is:

xxxxxxx

To receive payment for participating, return to the Mechanical Turk window, enter this validation code, then click “Submit”.