

FACTORS INFLUENCING DECISIONS TO INVEST IN CRYPTOCURRENCY
by

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by

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Abstract

Cryptocurrency is one of the newer options when it comes to the world of investing. According to a survey done by Bakkt, a digital asset marketplace, 48 percent of American investors invested in cryptocurrency during the first half of 2021, and 32 percent of respondents who did not currently hold cryptocurrency planned to within the next 6 months. This relatively new investment method has gained a lot of interest from investors. For all the excitement around cryptocurrencies, we know very little about this investment method. There has not been much research done on the issue of how risky investors perceive cryptocurrency to be, or what drives risk tolerance when dealing with cryptocurrency investments. This study investigates whether the source and amount of investment capital will influence the desire to invest in cryptocurrency and the perceived risk of investing in cryptocurrency. I find that participants with self-generated capital choose to invest less in cryptocurrency when the dollar amount available to invest is \$1,000.

Introduction

According to a survey done by Bakkt, a digital asset marketplace, 48 percent of American investors invested in cryptocurrency during the first half of 2021 and 32 percent of respondents who did not currently hold cryptocurrency planned to within the next 6 months (Oliveros, 2021). This relatively new investment method has gained a lot of interest with investors. We have seen everything from Bitcoin rising in price from just over 7,000 dollars in January of 2020 to just under 30,000 dollars a year later to the creation of Dogecoin and other well-known cryptos (Bitcoin price today & history chart).

For all the excitement around cryptocurrencies, we know very little about this investment method. There has not been much research done on the issue of how risky investors perceive cryptocurrency to be, or what drives risk tolerance when dealing with cryptocurrency investments. With this study, I plan to investigate risk tolerance and investor perceptions of cryptocurrencies and shed light on this currently mysterious investment method.

Cryptocurrency is a relatively new investment vehicle that is not as well understood as the older methods of investing like stocks or bonds. Merriam Webster Dictionary defines a cryptocurrency as “any form of currency that only exists digitally, that usually has no central issuing or regulating authority but instead uses a decentralized system to record transactions and manage the issuance of new units, and that relies on cryptography to prevent counterfeiting and fraudulent transactions (Merriam- Webster). Bitcoin, the first cryptocurrency released on the market, was released in 2009. Since then a multitude of other cryptocurrencies have been formed,

some more popular than others (Hileman & Rauchs, 2017).

The market capitalization of Bitcoin in 2015 amounted to 86 percent, compared to in 2020 when it had dropped to 66 percent. This is due to other cryptocurrencies being created and implemented into the market. These new cryptocurrencies consist of either altcoins, which are clones of Bitcoin with minor differences, or innovative new cryptocurrencies that either create new blockchains for their currency or build on top of already existing blockchain (Hileman & Rauchs, 2017).

There are multiple ways for cryptocurrency holders to use cryptocurrency. These different uses include investing, medium of exchange, payment rail, and nonmonetary use. The most common use of cryptocurrency is as an investment method, but the use of cryptocurrency as a medium of exchange is steadily growing as more merchants worldwide are accepting cryptocurrency as a method of payment. According to the Coinbase/ARK investment report, 46 percent of Coinbase users use Bitcoin as a transactional medium (using Bitcoin for a transaction at least once a year). The lack of cryptocurrencies being used as a medium of exchange is likely due to the volatility of price (Hileman & Rauchs, 2017).

There are now hundreds of platforms that allow cryptocurrency trading. In this research, I specifically mention most popular trading platforms, including E*Trade, Fidelity, and Robinhood, among others (see Appendix for detailed survey instrument, including a list of trading platforms mentioned). Each of the platforms listed allows cryptocurrency trading. There are some platforms that specialize in cryptocurrency trading while others offer a wide variety of investment methods including

cryptocurrency.

Research and Hypothesis

In this study, I will investigate what causes people to choose whether to invest in cryptocurrency or not. One factor that weighs heavily in this decision is the risk perception of investing in cryptocurrency. "Risk tolerance is the maximum amount of risk that an investor is willing to accept in making a financial decision" (Nobre & Grable, 2015). In a study, it was found that "investment experience, especially risky asset holding, had a significant mediating effect between subjective financial knowledge and cryptocurrency investment behavior" (Zhao & Zhang, 2021). Another study supports this argument, making the claim that financial risk tolerance is a factor that impacts the intention to invest in cryptocurrency (Muchlis Gazali et al., 2018).

Through this study, I will look at how two variables affect the decision to invest in cryptocurrency. These variables are the source of the money to invest (whether money is earned or gifted), and the amount of money is being invested (\$1,000 or \$100,000). According to a study done on myopic risk aversion, losing money has a much higher effect on risk aversion than gaining the same amount of money. In the study, a loss of 100 dollars led to double as much disutility as gaining 100 dollars caused in utility (Thaler et al., 1997). This means that in a situation where someone is choosing how to invest money, a past loss will have a stronger affect on their decision than a past gain. In this study, we are only observing the effect of a gain and this would be modeled by the participant being gifted money. Since there is utility perceived from a monetary gain, we are lead to the following hypothesis:

Hypothesis 1: The participants in the scenario where they have received an inheritance will invest a greater portion of their investment allowance into cryptocurrency than those in the scenario where they have saved money to invest.

Current research does not lead me to any definitive conclusions on how the amount of money will impact participants' risk assessments. Therefore, related to the amount available to invest, I pose the following research question:

Research Question: Will participants allocate greater portions of their investment allowance to cryptocurrency based on the amount of their allowance?

In the survey created for this study, participants are asked a range of demographic questions and given one of four different investment situations, in which they have to choose how to allocate the funds they have to different investment vehicles. These situations include a variation of participants investing 100,000 or 1,000 dollars as well as these funds being from savings or from an inheritance from a distant relative. This tests the variable of funds being gifted or earned and amount being invested.

Data and Results

The survey was administered via Qualtrics. I collected 44 completed responses to be used for analysis. There is a statistically significant interaction ($P=0.035$) showing that participants in the 1,000 dollars saved condition were less likely to invest their money in cryptocurrency compared to the other 3 conditions. Participants invested an

average of 2 percent of their savings in cryptocurrency investments in this condition . Comparatively participants in the 1000 dollars inherited condition invested 17 percent of their money in cryptocurrency; participants in the 100,000 dollar inherited condition invested 10 percent of their money in cryptocurrency; and participants in the 100,000 dollars saved condition invested 9 percent of their money in cryptocurrency.

[Insert figure 1 here]

Conclusion

Cryptocurrency is an expanding form of investment in today's society and needs to be understood in terms of what influences investors to make an investment decision with cryptocurrency. Since its inception in 2009 with the first cryptocurrency (Bitcoin) reaching the market, cryptocurrency has gained traction and is now more popular than ever. The purpose of this study was to gain insight on the factors that cause investors to invest in cryptocurrency and this purpose has been successful. The results support Hypothesis 1 that participants who inherited money are more likely to invest it in cryptocurrency than those who have saved their money. There were no significant findings related to the research question of how different amounts of investment allowances would affect the decision to allocate money to a cryptocurrency investment. Future research that may be done on this topic is how the media presence of cryptocurrency at the time of investment sways the decision to invest in cryptocurrency.

Reference List

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Figure 1

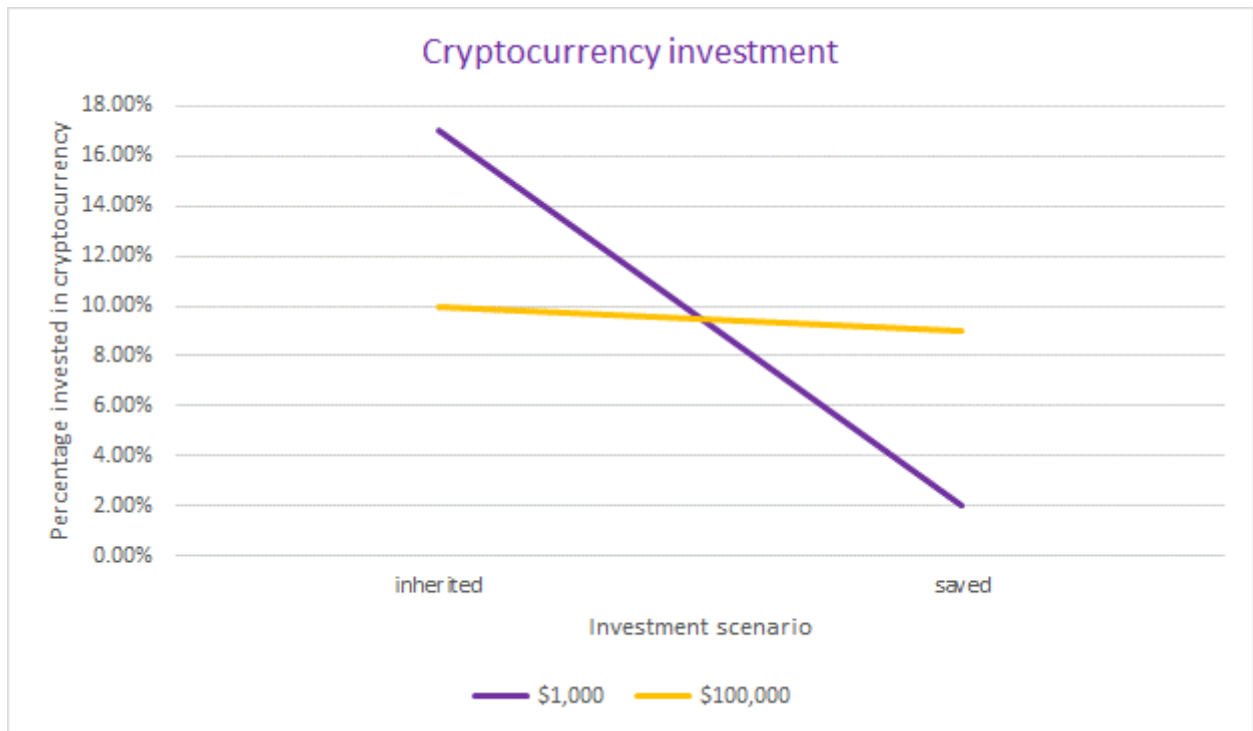


Table 1

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	0.10512512	0.03504171	1.92	0.1413
Error	40	0.72887155	0.01822179		
Corrected Total	43	0.83399667			

Source	DF	Type III SS	Mean Square	F Value	Pr > F
IVAMT	1	0.00000625	0.00000625	0.00	0.9853
SOURCE	1	0.06331052	0.06331052	3.47	0.0697
IVAMT*SOURCE	1	0.05157350	0.05157350	2.83	0.1003

Table 2

Dependent Variable: CRYPTOPR

Contrast	DF	Contrast SS	Mean Square	F Value	Pr > F
\$1,000 Saved lowest	1	0.06357267	0.06357267	3.49	0.0691

Appendix

Note: Participants saw one of the following four scenarios.

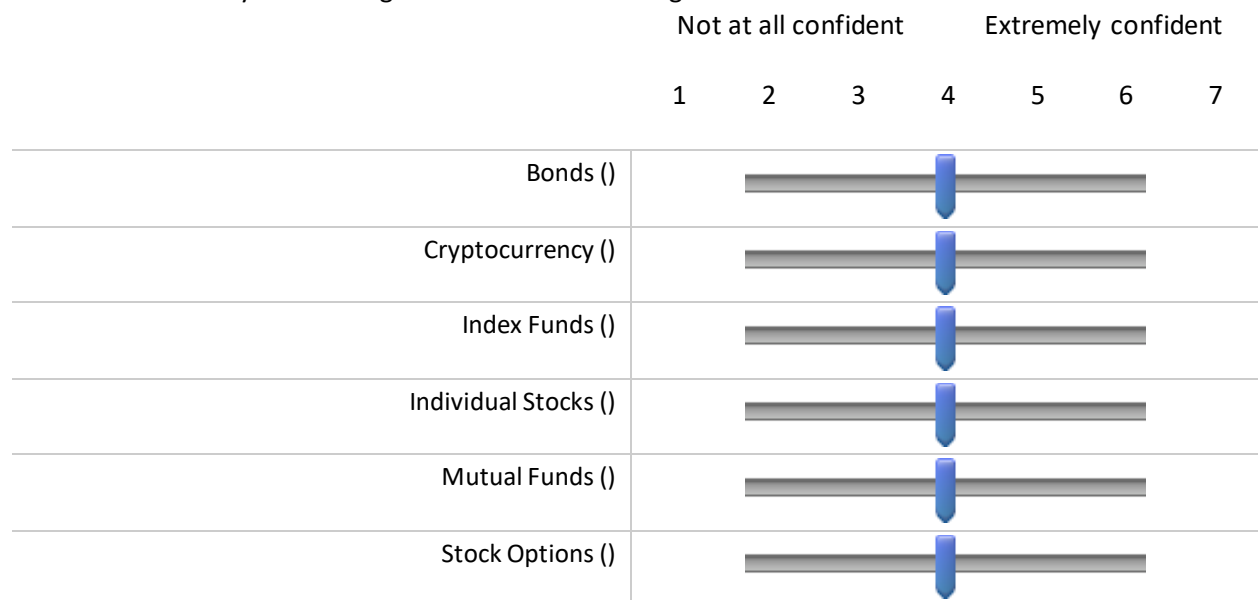
Scenario 1:

Over the past several years at your job, you have worked to save up \$1,000. After some consideration, you make a decision to invest the money.

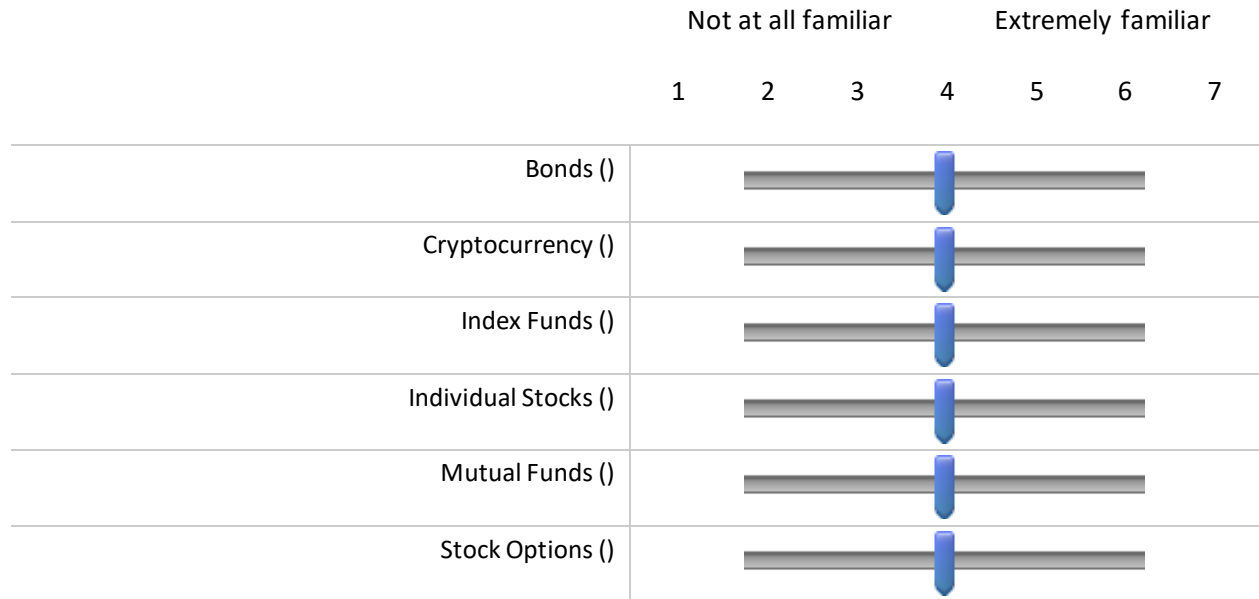
Considering the following investment options, how much of your \$1,000 would you allocate to each of the following investments?

- _____ Bonds (1)
- _____ Cryptocurrency (2)
- _____ Index Funds (3)
- _____ Individual Stocks (4)
- _____ Mutual Funds (5)
- _____ Stock Options (6)

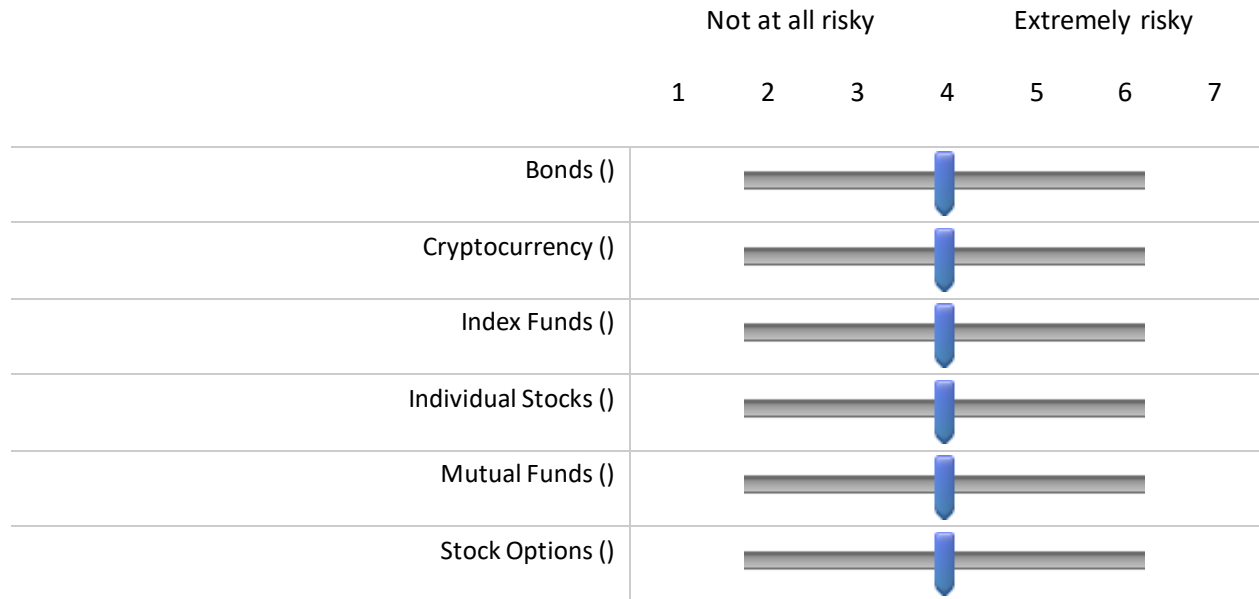
How confident are you investing in each of the following investments?



How familiar are you with each of the following investments?



What is your perception of the risk of each of the following investments?



What percentage annual return would you expect from each of the following investments?

- Bonds (1) _____
- Cryptocurrency (2) _____
- Index Funds (3) _____
- Individual Stocks (4) _____
- Mutual Funds (5) _____
- Stock Options (6) _____

Scenario 2:

You have recently received an inheritance of \$1,000 from a distant relative. After some consideration, you make a decision to invest the money.

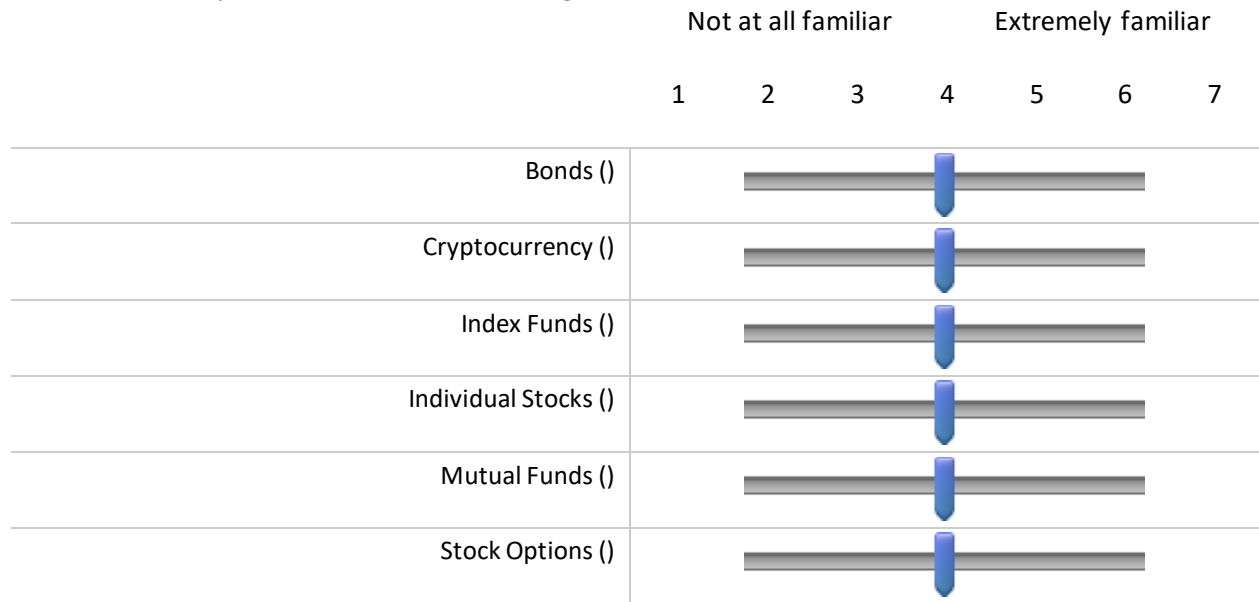
Considering the following investment options, how much of your \$1,000 would you allocate to each of the following investments?

- _____ Bonds (1)
- _____ Cryptocurrency (2)
- _____ Index Funds (3)
- _____ Individual Stocks (4)
- _____ Mutual Funds (5)
- _____ Stock Options (6)

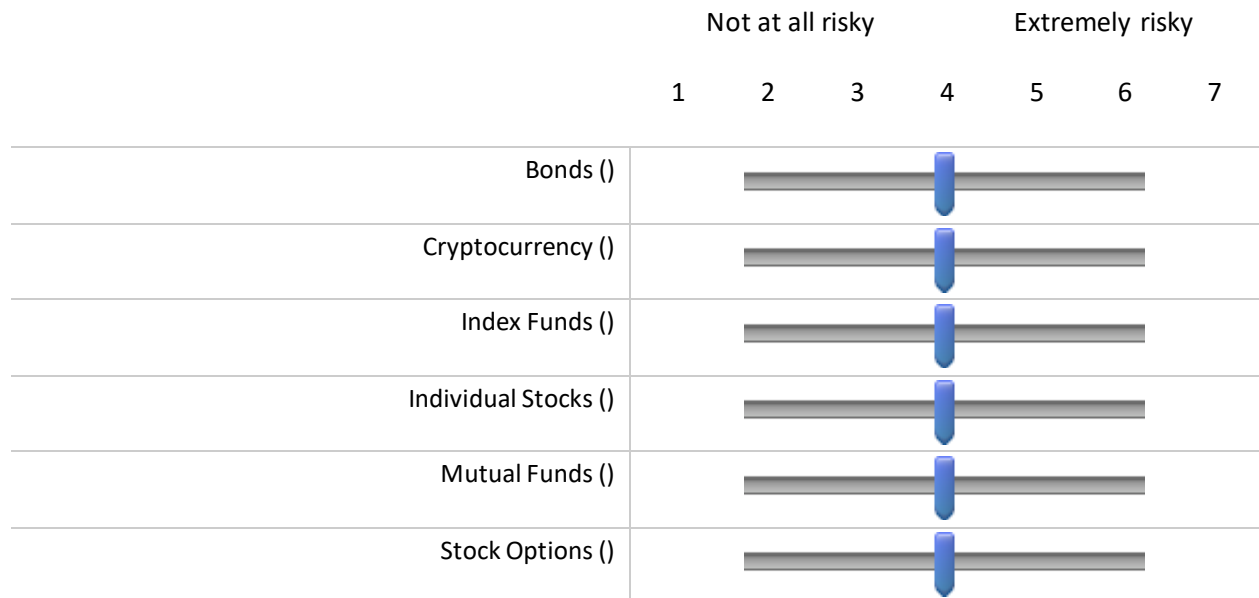
How confident are you investing in each of the following investments?

	Not at all confident			Extremely confident			
	1	2	3	4	5	6	7
Bonds ()							
Cryptocurrency ()							
Index Funds ()							
Individual Stocks ()							
Mutual Funds ()							
Stock Options ()							

How familiar are you with each of the following investments?



What is your perception of the risk of each of the following investments?



What percentage annual return would you expect from each of the following investments?

Bonds (1) _____

Cryptocurrency (2) _____

Index Funds (3) _____

Individual Stocks (4) _____

Mutual Funds (5) _____

Stock Options (6) _____

Scenario 3:

Over the past several years at your job, you have worked to save up \$100,000. After some consideration, you make a decision to invest the money.

Considering the following investment options, how much of your \$100,000 would you allocate to each of the following investments?

_____ Bonds (1)

_____ Cryptocurrency (2)

_____ Index Funds (3)

_____ Individual Stocks (4)

_____ Mutual Funds (5)

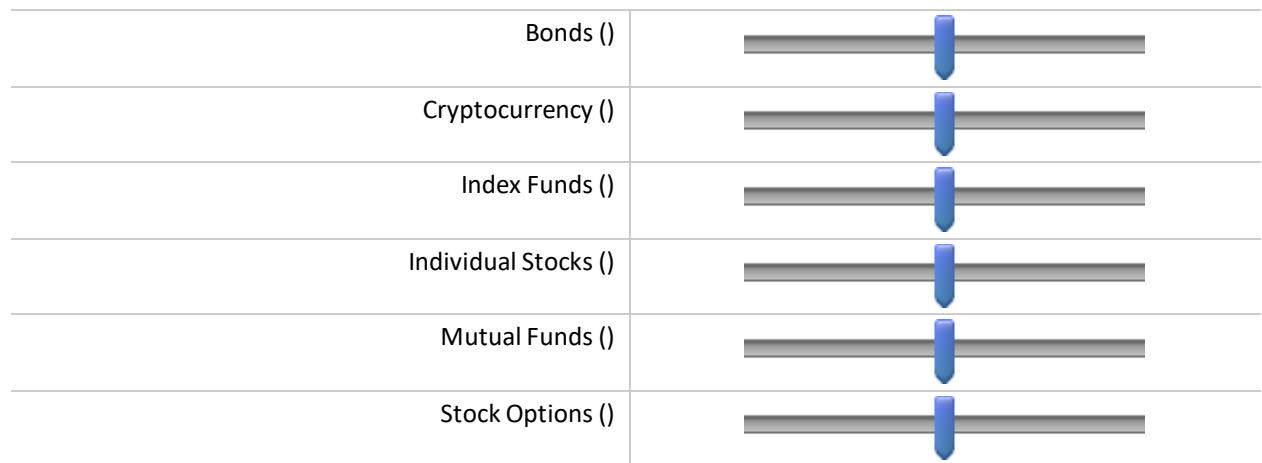
_____ Stock Options (6)

How confident are you investing in each of the following investments?

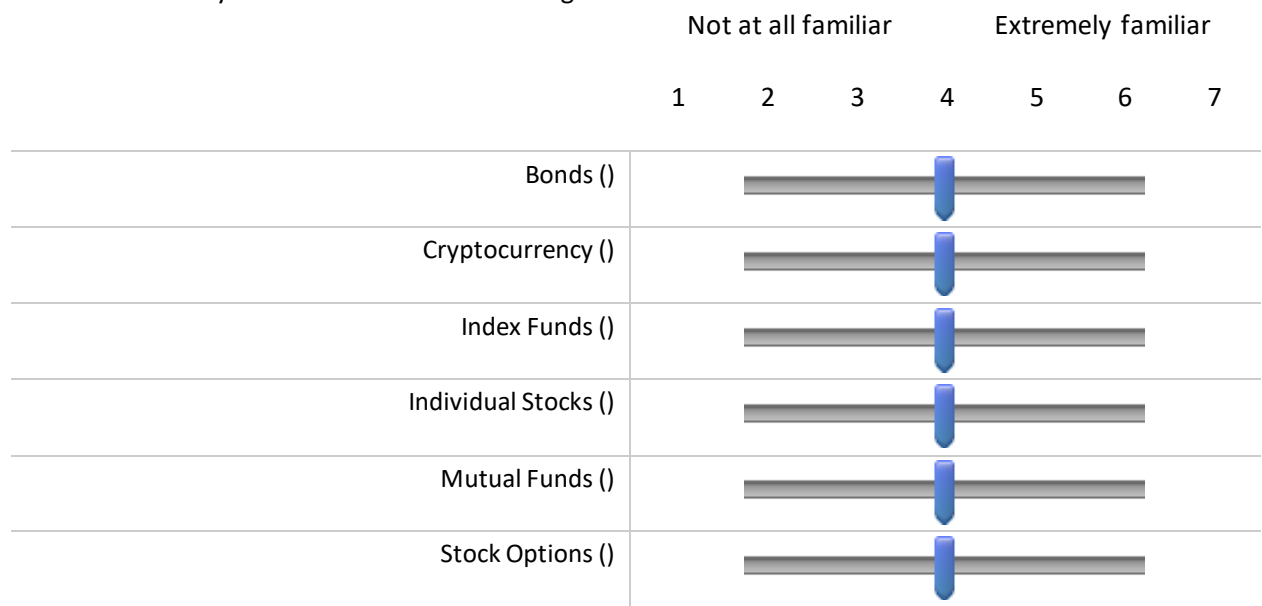
Not at all confident

Extremely confident

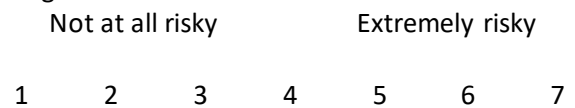
1 2 3 4 5 6 7









How familiar are you with each of the following investments?



What is your perception of the risk of each of the following investments?



Bonds ()	
Cryptocurrency ()	
Index Funds ()	
Individual Stocks ()	
Mutual Funds ()	
Stock Options ()	

What percentage annual return would you expect from each of the following investments?

Bonds (1) _____

Cryptocurrency (2) _____

Index Funds (3) _____

Individual Stocks (4) _____

Mutual Funds (5) _____

Stock Options (6) _____

Scenario 4:

You have recently received an inheritance of \$100,000 from a distant relative. After some consideration, you make a decision to invest the money.

Considering the following investment options, how much of your \$100,000 would you allocate to each of the following investments?

_____ Bonds (1)

_____ Cryptocurrency (2)

_____ Index Funds (3)

_____ Individual Stocks (4)

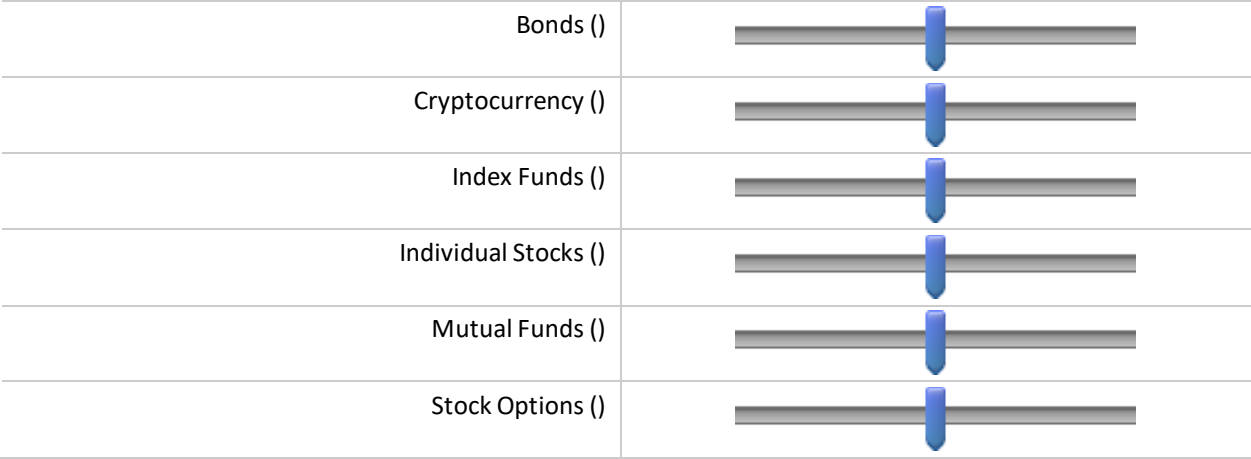
_____ Mutual Funds (5)

_____ Stock Options (6)

How confident are you investing in each of the following investments?

Not at all confident Extremely confident

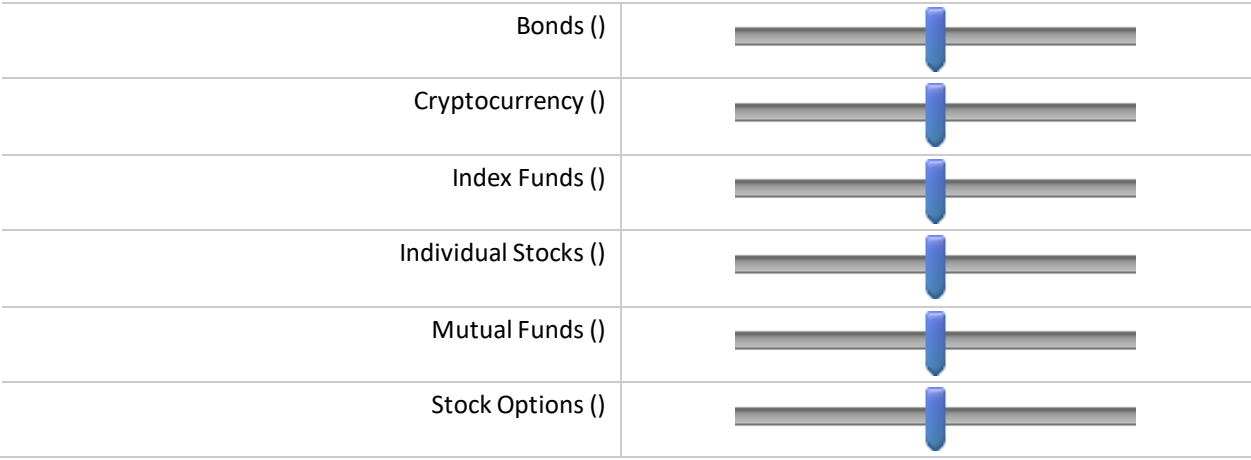
1 2 3 4 5 6 7



How familiar are you with each of the following investments?

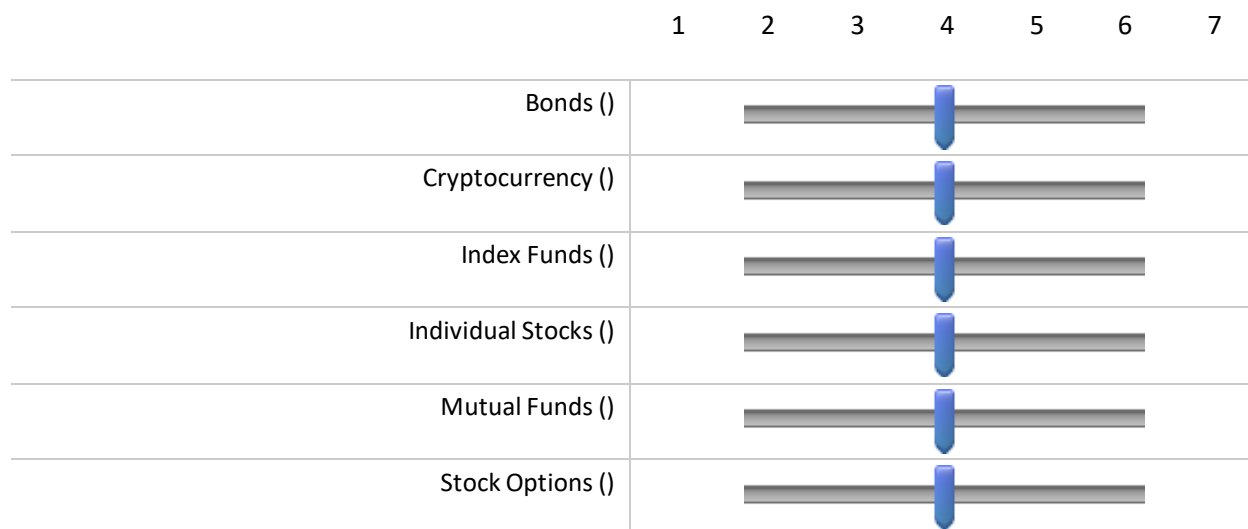
Not at all familiar Extremely familiar

1 2 3 4 5 6 7



What is your perception of the risk of each of the following investments?

Not at all risky Extremely risky



What percentage annual return would you expect from each of the following investments?

Bonds (1) _____

Cryptocurrency (2) _____

Index Funds (3) _____

Individual Stocks (4) _____

Mutual Funds (5) _____

Stock Options (6) _____

Demographic Questions:

Which of the following describes your knowledge of cryptocurrency? Select all that apply.

No knowledge of cryptocurrency (1)

Have read media articles on cryptocurrency (2)

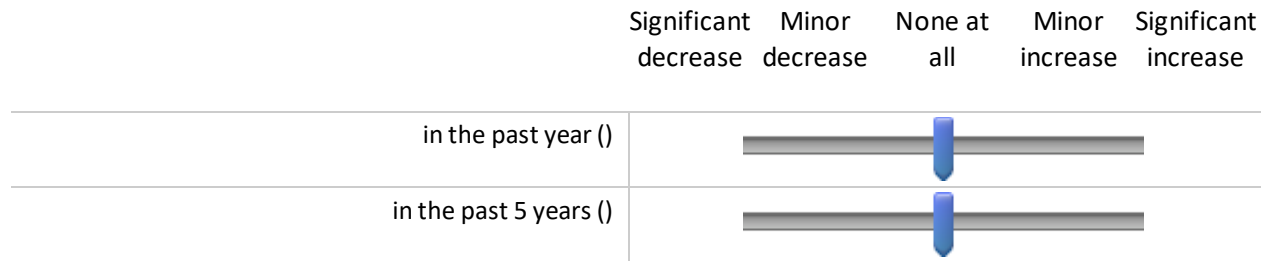
Have read scholarly articles/research on cryptocurrency (3)

Have heard about cryptocurrency from friends (4)

Personally invest in cryptocurrency (5)

Other (6) _____

How much has your salary changed:



What is your current employment status?

Employed full time (1)

Employed part time (2)

Caregiver / homemaker (3)

Unemployed looking for work (4)

Unemployed not looking for work (5)

Retired (6)

Student (7)

Other (8) _____

What is your current salary?

\$0 (1)

\$1 - \$9,999 (2)

\$10,000 - \$24,999 (3)

\$25,000 - \$49,999 (4)

\$50,000 - \$74,999 (5)

\$75,000 - \$99,999 (6)

\$100,000 - \$149,999 (7)

\$150,000 and greater (8)

Prefer not to answer (9)

Do you currently have an employee-sponsored retirement account (e.g., a 401(k) or 403(b) plan) or IRA?

Yes (3)

No, but plan to start one in the future (2)

No, and do not plan to start one (1)

Do you currently have an investment portfolio other than an employee-sponsored retirement account or IRA?

Yes (3)

No, but plan to start one in the future (2)

No, and do not plan to start one (1)

What brokerage firm(s) is (are) your investment portfolio with? Select all that apply.

Charles Schwab (1)

E*Trade (2)

Fidelity (3)

Robinhood (4)

TD Ameritrade (5)

Webull (6)

Other _____ (7)

Not Sure (8)

What is the current dollar value of your investment portfolio?

\$1 - \$1,000 (1)

\$1,001 - \$10,000 (2)

\$10,001 - \$50,000 (3)

\$50,001 - \$100,000 (4)

\$100,00+ (5)

What is the current dollar value of your investment in cryptocurrency?

\$1 - \$1,000 (1)

\$1,001 - \$10,000 (2)

\$10,001 - \$50,000 (3)

\$50,001 - \$100,000 (4)

\$100,000+ (5)

What is your age?

What is your gender?

Male (1)

Female (2)

Other (3) _____

Prefer not to answer (4)

What is your marital status?

Single/Never Married (1)

Married (2)

Widowed (3)

Separated (4)

Divorced (5)

How many children do you have?

What is your current education level?

No High School Diploma (1)

High School Diploma (2)

Some College (3)

Associates Degree (4)

Bachelors Degree (5)

Graduate Degree (6)