Long-Term Investment Research Framework
Exercise Progress: 1 of 49 Steps Completed
Cryptocurrency Chosen: Ripple

Year that Ripple was founded: 2013
First date Ripple was traded: Sometime in 2013
Ticker Symbol for Ripple is: XRP
Block Time (Time to Create New Ripple) is: See below*

* Ripple doesn't have a block time because it isn't a blockchain, rather it's a decentralized ledger that uses a totally different protocol to manage/govern consensus. There are no 'blocks', so there is no blockchain. Ripple transactions are sent almost instantly on Ripple.

STEPS 3-5: Ripple Price,Restrictions,Purpose,Your Opinion on Long Term Strategy:

☐ Check this box when you understand Steps 3-5

Market Capitalization: $ 26.68B

Ripple Price: $ 0.70

52 Week Low: $ 0.13
52 Week High: $ 3.29
Country of Origin: USA

STEP 3: Any Restrictions for Ripple in: Canada (Click me)?

(Click me to answer)

STEP 4: What is the Brief Purpose of Ripple (What Problem is it Solving)?

Ripple offers a global real time cost efficient payment system for transactions between financial companies.

STEP 5: What is Your Brief Opinion On the Long-Term Strategy of Ripple ?

Ripple has secured partnerships with numerous financial institutions as part of its long-term strategy to improve domestic and international banking processes. I think Ripple is on a great track for long-term success given the fact that there is already widespread adoption from large financial services companies.

STEPS 6-17: Ripple Sources to Read/Review/Research and Stay on Top of:

Please click on the green cells below to mark each as Done or N/A.

Click the Green Shaded Cells Below to Select Done, Not Done or Not Applicable

STEP 6:	Not Done	Did you sign up for Ripple Google Alerts at alerts.google.com? Click me to go to alerts.google.com.
STEP 7:	Not Done	Did you read the whitepaper for Ripple? Click me to access the Ripple whitepaper.
STEP 8:	Not Done	Did you sign up for Meetup.com meetings in Canada for Ripple? Click me to access local meetups in Canada for Ripple (if available).
STEP 9:	Not Done	Using Twitter, have you followed official Ripple Twitter feed? Click me to access Twitter to follow the official Ripple Twitter feed.
STEP 10:	Not Done	Have you tried the product (meaning have you bought or sold fractions of or an entire Ripple)? If not, please watch the lesson in Part 2 of the course on how to buy Ripple.
STEP 11:	Not Done	(Optional) Have you used Github.com to research Ripple? Click me to access Github.com and read about/research Ripple
STEP 12:	Not Done	(Optional) Have you used Reddit.com to research Ripple? Click me to access Reddit.com and read about/research Ripple
STEP 13:	Not Done	(Optional) Have you used YouTube to research Ripple? Click me to access YouTube.com and read about/research Ripple
STEP 14:	Not Done	Have you reviewed the contents and resources on the Ripple website? Click me to access the official website for Ripple
STEP 15:	Not Done	(Optional) Have you reviewed the Wiki website contents and resources for Ripple? Click me to access a helpful Wiki resource for Ripple
STEP 16:	Not Done	Have you reviewed the non-editorial articles for Ripple on Coindesk.com? Click me to access Coindesk.com articles for Ripple
STEP 17:	Not Done	Have you analyzed how Google search trends have changed for Ripple? Click me to access Google search trends for Ripple . Optional: enter your thoughts in the space below on the change in search interest over the past 12 months.

STEPS 18-21: Ripple Qualitative Investment Research Comments (Background + Pros & Cons):

☐ Check this box when you understand Steps 18-21.

STEP 18: What is Ripple? This is similar to Step 4, with much more detail on the background of Ripple.

Ripple is a real-time global network for payment settlement. This means that Ripple is a network where payments can be transferred between entities. The Ripple network is run by privately-held company, Ripple, Inc., while the software underwriting the network is open source allowing anyone the ability to set up a node on the Ripple network. Ripple is a distributed ledger of transactions. It is a means of recording and proving that a transaction (or transactions) happened in an indisputable fashion. In addition to the Ripple network, it is integral we discuss XRP, the native currency of Ripple. Sometimes XRP is referred to as 'Ripple' as well, as in 'I paid her 50 Ripples'. The Ripple network can work with pretty much any currency you want it to, or even other kinds of assets.

STEP 19: Why does Ripple exist?

The main problem and reason that Ripple exists is to solve the problem of cross-border payments. Where the traditional system charges high fees and takes multiple days to process, Ripple charges a cost of fractions of a cent and takes a matter of seconds to process. As we've done with the previous cryptocurrencies, we'll also compare Ripple to Bitcoin and highlight their differentiations. With Bitcoin, the approach is decentralized with no one entity in control. Since there is no trusted party, all Bitcoin transactions are verified by a process of 'proof of work'. Through proof of work 'miners' must complete a computationally intensive process and run specialized processors to try and create new blocks for the Bitcoin blockchain. On the other hand, we have Ripple, which approaches the transaction validation process through designated trusted nodes or subnetworks on the network. The trusted nodes are referred to as 'validators' and form a consensus on the legitimacy of a transaction. This process requires much less energy to execute and can be done in a matter of seconds rather than hours. The main constraint is finding trustworthy 'validators' to serve as the trusted nodes in legitimizing transactions. Because the idea behind XRP is to be a central currency that serves as the glue between other currencies, the Ripple network automatically and transparently converts currencies to allow cross-border payments.

STEP 20: What are the pros (positive attributes of) Ripple ?

Since Ripple is a private blockchain that provides solutions for banks, enabling exchange between cryptocurrencies and real world currencies, it is one of the first cryptocurrencies to receive backing from the finance industry. Additionally, because the bank market is huge and technologically outdated, Ripple is in a strong position to provide a more secure network for financial institutes. In comparison to traditional banking services, the Ripple network is more secure, anonymous, and frictionless. An additional key indication of Ripple's success is its investors, which include Google Ventures, Standard Chartered Bank, and Andreesen Horowitz and the partner organizations utilizing Ripple's blockchain technology such as American Express, Banco Santander, MoneyGram International, and Western Union.

STEP 21: What are the cons (negative attributes of) Ripple ?

A major stipulation of Ripple, is that it is centralized and private unlike its contemporaries Bitcoin and Ethereum. Ripple has a 70% ownership stake in the coin, which suggests the risk of manipulated inflation and deflation in the coin. Individuals utilizing Ripple do not have the ability to access the entire Ripple network. Compounding the disadvantages of Ripple, is that it ultimately helps banks and financial institutes profit more while taking away from the aspect of cryptocurrency being decentralized.

STEPS 22-24: Ripple Management Team, Investors, Developers, Partners, Customers:

☐ Check this box when finished with Steps 22-24.

STEP 22: What is the management team like for Ripple? Include information like your thoughts on the quality of the CEO, the quality of the developers that work there, the quality of board, the quality of investors etc (check out crunchbase.com and comment on VC investors if applicable).

The CEO of Ripple, Brad Garlinghouse, is an Harvard Business School alumni who has extensive executive experience working in tech companies and venture capital (please click on the hyperlink to the right to access the Crunchbase page for Ripple, then scroll down and click on Brad's name to see his extensive experience, investment exits, etc). The developers and cryptographers at Ripple are world-class and led by some of the best crypto researchers around. Ripple's board consists of top finance professionals and venture capitalists. Their investors include some of the most prominent venture capital firms in Silicon Valley like Andreesen Horowitz and Google Ventures.

Click me to go to the Crunchbase page for Ripple in order to view the investor profiles, the management team profiles and the background of the board (if available). The free content on Crunchbase is all we need...no need to pay for a subscription.

STEP 23: What is the developer community like for Ripple? Include information like do you think they seem committed to improving the cryptocurrency or are they opensource or not, etc.?

Ripple's developer community is vast and has the ability to build applications that interface with Ripple's open-source technologies.

STEP 24: Does Ripple have any noteable reference customers or partners (i.e., large companies or government agencies that use or have positive things to say about Ripple)?

American Express, Banco Santander, MoneyGram International, Deloitte, and SBI Holdings are among some of the notable partners using Ripple.

STEPS 25-26: Ripple Security & Differentiation Versus the Competition: ☐ Check this box when finished with Steps 25-26.

STEP 25: Please comment on the strength of the security of Ripple when compared to other cryptocurrencies.

The openness/transparency that the Ripple network operates on, has allowed for vulnerabilities to develop. While the core of the Ripple network remains highly liquid, the structure is vulnerable to attacks on certain nodes which can disable some users' from accessing funds. Tens of thousands of wallets would be at risk were an attack like that to happen. However, early identification of weaknesses in the system allow Ripple's development team to proactively fix them.

STEP 26: How is Ripple different from other cryptocurrencies (in addition to differences in security protocols if applicable)?

Ripple differs from other cryptocurrencies in that it is a centralized system owned by the Ripple company. Also, the company owns a material portion of the total supply of XRP.

STEPS 27-28: Wallets and Echanges that Support Ripple: ☐ Check this box when finished with Steps 27-28.

STEP 27: Of the 6 exchanges discussed in this course, can you transact in Ripple on all 6 of these exchanges: GDAX, POLONIEX, KRAKEN, BITTREX, GEMINI, and BINANCE? If not, which of the 6 aforementioned exchanges do not currently accept Ripple?

Of the 6 exchanges discussed in the course, Kraken is the only exchange it is available on (per the list on Ripple's official website of exchanges).

STEP 28: Of the 8 wallets discussed in this course, can you use Ripple with all 8 of these wallets: QR CODE PAPER BASED WALLET, TREZOR, LEDGER NANO S, DIGITALBITBOX, KEEPKEY, COINBASE, ELECTRUM AND BLOCKCHAIN? If not, which of the 8 aforementioned wallets do not currently accept Ripple?

Of the 8 wallets discussed in the course, only the QR code paper based wallet and the Ledger Nano S support Ripple.

STEPS 29-30: Current and Maximum Supply # and Date of Maximum Supply of Ripple: ☐ Check this box when finished with Steps 29-30.

STEP 29: What is the current supply of shares of Ripple available today?
~39 billion

STEP 30: What will be the maximum supply of shares of Ripple available AND what approximate year will the maximum supply be at (ie 2040)?
The company plans to create 100 billion in maximum supply, where 50% will be retained by the company. It's hard to estimate when the maximum supply will be available.

STEPS 31-33: Country, Accounting and Bug Risks of Investing in Ripple: ☐ Check this box when finished with Steps 31-33.

STEP 31: If applicable, who is the auditor of Ripple and are they reputable/well known in their country of origin or country of incorporation?

N/A

STEP 32: Are there any notable country or regulatory risks when it comes to Ripple that might hurt the ability of Ripple to be successful in the long-run when compared to other cryptocurrencies?

Ripple has been fined in the past for disregarding regulations. Additionally, XRP has experienced price reductions whenever countries have taken regulatory action to ban crypto trading, but I don't think any of the aforementioned issues will have a substantial enough of an impact to hurt Ripple's long-term success.

STEP 33: Are there any code bugs for Ripple that are a concern for investors?

Ripple recently announced a bug bounty program with their latest software update. This will allow the company to focus less on listening to frequent complaints and focus more on improving their technology.

STEPS 34-35: What would make you MUCH MORE or MUCH LESS positive on Ripple? ☐ Check this box when finished with Steps 34-35

STEP 34: What would make you MUCH MORE positive on Ripple (meaning what news development, contract, etc would make you much more positive)?

I would be much more positive on Ripple if many more of the world's largest banks used its technology and if more governments supported its development.

STEP 35: What would make you MUCH LESS positive on Ripple (meaning what news development, contract, etc would make you much less positive)?

I would be much less positive on Ripple if the company and its founders suddenly cashed out on their holdings of Ripple.

STEPS 36-39: Mining Incentives, Reddit & Twitter Followers forRipple: ☐ Check this box when finished with Steps 36-39

STEP 36: Is there an economic incentive for people to impove Ripple (ie through mining etc? Please explain)

Aside from improving international payments and banking processes, there is no mining for Ripple as it is a centralized system with a limited supply.

STEP 37: How many Reddit readers does Ripple have?

Ripple has 185,000 Reddit readers, compared to an average of 192,950 for these ten cryptocurrencies: BTC, ETH, XRP, LTC, XMR, ZEC, DASH, NEO, ADA, XLM.

STEP 38: How many Twitter readers does Ripple have?

Ripple has 862,000 Twitter readers/subscribers, compared to an average of 363,890 for these ten cryptocurrencies: BTC, ETH, XRP, LTC, XMR, ZEC, DASH, NEO, ADA, XLM.

STEP 39: [Optional] Write in the space below the name of another social media company like Twitter that is worth tracking in your country when doing research on Ripple and comment on the metrics relative to other cryptocurrencies similar to what you have done in Step 38.

STEPS 40-43*: Quantifying an Estimate on the Long-Term Target Price for Ripple: ☐ Check this box when finished with Steps 40-43*

In this step, we will use several assumptions for coming up with an approximate long term target price on Ripple. Please answer questions 40-43 in order to arrive at a target price based on your assumptions. This is meant as a guideline for one way we can think about quantifying a target price. Please read the 6 facts below before answering the questions; thanks:

* Please note that the source of the data for the size of markets used in the facts below are at this website (click me to go there): money.visualcapitalist.com/worlds-money-markets-one-visualization-2017/

Fact #1: Stock Market Combined Value: The value of all stocks added up (meaning the combined global market cap of stocks) is in US $: $73,000,000,000,000

Please note that $73,000,000,000,000 US dollars in Canadian dollars is 93,934,940,000,000 using an exchange rate of 1.28678 per $1 US dollar (you can change this rate by clicking on me or by clicking on the settings button).

Fact #2: The World's Largest Stock Value: The value of the largest company in the world on the stock market (which is Apple) is: $865,000,000,000

Please note that $865,000,000,000 US dollars in Canadian dollars is 1,113,064,700,000 using an exchange rate of 1.28678 per $1 US dollar (you can change this rate by clicking on me or by clicking on the settings button).

Fact #3: % of the Stock Market Value in the Largest Stock: The % value of the largest stock as a % of the world's market cap is about: 1%

Fact #4: The Value of the World's Money Supply: The total of all of the money supply added up in the world is: $90,000,000,000,000

Please note that $90,000,000,000,000 US dollars in Canadian dollars is 115,810,200,000,000 using an exchange rate of 1.28678 per $1 US dollar (you can change this rate by clicking on me or by clicking on the settings button).

Fact #5: According to www.CoinMarketCap.com, the market cap of all cryptocurrencies is: $422,000,000,000

Please note that $422,000,000,000 US dollars in Canadian dollars is 543,021,160,000 using an exchange rate of 1.28678 per $1 US dollar (you can change this rate by clicking on me or by clicking on the settings button).

Click me to get this fact by scrolling down to the bottom of this page for the data source: https://coinmarketcap.com/all/views/all/

Fact #6: The percent of the market cap of all cryptocurrencies as a percent of all money supply in the world is: 0.47%

Please note, the target price (below this box) is just a sample, please watch the video associated with this called *(A+B) Using My Investment Framework to Analyze Ripple* for more details.

You can update your version of the target price in the upcoming lecture, called: *(A+B) An Exercise on Creating YOUR Version of the Ripple Investment Framework.* For more details, please watch *(A+B) An Exercise on Creating YOUR Version of the Ripple Investment Framework.* Thanks

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STEP 41: What percent of the ENTIRE cryptocurrency market do you think Ripple will have in cryptocurrencies in 20 years? Use the grey up and down arrows on the right to select your answer in the green box...or just type your answer in the green box:

10 %

Based on your answer of 10%, this implies that your 20 year estimate of the value of the market cap of Ripple will be 900,000,000,000 US dollars.

Please note that $900,000,000,000 US dollars in Canadian dollars is 115,810,200,000,000 using an exchange rate of 1.28678 per $1 US dollar (you can change this rate by clicking on me or by clicking on the settings button).

STEP 42: What do you think the supply of coins for Ripple will be in 20 years? Use the grey up and down arrows on the right to select your answer in the orange box...or just type your answer in the orange box. You can use the answers in Steps 29 and 30 if you want to:

20   Million coins

Based on your answer of 20 million coins, this implies that your 20 year estimate of the value of the price of Ripple will

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Please note, the target price (below this box) is just a sample, please watch the video associated with this called *(A+B) Using My Investment Framework to Analyze Ripple* for more details.

You can update your version of the target price in the upcoming lecture, called: *(A+B) An Exercise on Creating YOUR Version of the Ripple Investment Framework.* For more details, please watch *(A+B) An Exercise on Creating YOUR Version of the Ripple Investment Framework.* Thanks

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WHAT ABOUT DISCOUNTING THE FUTURE VALUE? You might now be thinking that if we are forecasting what the target price will be in the future, then we should discount that future price into today's amount as a dollar that we receive in the future is worth less than a dollar that we receive today (if that sounds confusing, please make sure to watch the lecture called "(A+B) Steps 40-43: Estimating on the Long-Term Target Price on the Crypto"....and think of the reverse logic....meaning if we invested $1 in the bank today, it would be worth more in the future because of interest that we would make in our bank account...so we would prefer to get that $ today rather than in the future. The math below will clear this up).

[Optional] STEP 43: If you wanted to discount the future price into today's value using your own discount number of years and your own interest rate, then please plug those 2 parameters into the boxes on the right to get a more conservative discounted price as of today.

Enter Discount # of Years:	Enter Discount Interest Rate:
20	**10%**

Based on all of the assumptions listed above, and using a discount time period of 20 years and using a discount interest rate of 10%, the target price for Ripple is $6,689

STEPS 44-49: Technical Analysis for Ripple: ☐ Check this box when finished with Steps 44-49

Please watch the lesson mentioned in the yellow box on the left before looking at the technical analysis concepts below. Please note that the aforementioned lesson will explain how to look at charts when you do your technical analysis (please please please focus much more time on your long term fundamental analysis instead of technical analysis).

Ripple Price: .697

STEP 44: AVERAGE 3 MONTH VOLUME DATA:

Average 3 Month Daily Volume for Ripple:	83.96M
Avg. 3 Month Daily Volume for Ripple in US $:	$59M US Dollars
3 Month Daily Volume for Ripple in Canadian dollars:	75M Canadian dollars

Please look at the average 3 month volume of Ripple in the data for Step 44. Is this cryptocurrency liquid enough for you to easily buy or sell in 1 trading day? Please enter your comment below.
In most cases, the cryptocurrency volume is high enough for us to be able to get in or out within 1 day if needed. I want to put this concept on your radar screen now so that you can better assess the volume characteristic if you ever transact in less liquid cryptocurrencies as illiquid investments own us in a bad market (rather than vice versa).

STEP 45: 52 WEEK HIGH DATA:

52 Week High:	3.29
$ Change from 52 Week High:	-2.59
% Change from 52 Week High:	-79%

Please look at the price of the 52 week high for Ripple in the data for Step 45 and comment on the data below.
Ripple is 78.83% below the 52 week high price of 3.29. Most of the time, the price will be below the 52 week high. If the % below the 52 week high is material, then this could indicate that sentiment is negative given a negative news item or negative sentiment on the entire crypto market or another reason.

STEP 46: 52 WEEK LOW DATA:

52 Week Low:	.13
$ Change from 52 Week Low:	.57
% Change from 52 Week Low:	436%

Please look at the price of the 52 week low for Ripple in the data for Step 46 and comment on the data below.
Ripple is 435.85% above the 52 week low price of .13. Most of the time, the price will be above the 52 week low If the % above the 52 week low is material, then this could indicate that sentiment is positive given a positive news item or positive sentiment on the entire crypto market or another reason.

STEP 47: 50 DAY MOVING AVERAGE DATA:

50 Day Moving Average:	.69
$ Change from 50 Day:	.01
% Change from 50 Day:	6870.00%

Please look at the price of the 50 day moving average for Ripple in the data for Step 47 and comment on the data below.
Ripple is 6870.% above the 50 day moving average of .69, which indicates that sentiment may be positive on Ripple. (If the % above the 50 and 200 day moving averages are positive, then, this means that sentiment could be versy positive and vice versa.)

STEP 48: 200 DAY MOVING AVERAGE DATA:

200 Day Moving Average:	.82
$ Change from 200 Day:	-.12
% Change from 200 Day:	-680.83%

Please look at the price of the 200 day moving average for Ripple in the data for Step 48 and comment on the data below.
Ripple is -680.83% above the 200 day moving average of .82, which indicates that sentiment may be positive on Ripple. (If the % above the 50 and 200 day moving averages are positive, then, this means that sentiment could be versy positive and vice versa.)

STEP 49: RELATIVE STRENGTH INDEX (RSI):

What is the RSI and How Should I Consider Using the RSI Data? If you want, please watch the lesson mentioned in the yellow shaded column on the left before starting before reading the rest of Step 49. The Relative Strength Index (RSI) can indicate if too many people have been buying or selling and a technical mean reversion chart movement could occur (I generally love buying when everyone else is selling and vice versa as long as I love the underlying long term fundamentals on the underlying cryptocurrency).

Potential Buy Indication Using the RSI: An RSI close to 20, indicates that the cryptocurrency may be oversold, which is a great buy signal if you love the long term fundamentals.

Potential Sell Indication Using the RSI: If the RSI is close to 80, then this could indicate that you might want sell and book a little bit of profit and hopefully buy the cryptocurrency back at a lower level (when it is no longer overbought). There is nothing wrong will booking a little bit of profit by trading every now and then....but we are more focused on being long-term investors.

Click any cryptocurrency button below to see its RSI chart. If you don't see RSI at the bottom of the chart after clicking on one of the buttons below, then click on INDICATOR in the top left hand corner after you click the button and add the RSI. Make sure you are using the most recent dates on the chart. If you get an error message in your browser, go to finance.yahoo.com and create the chart for whatever crypto you are using. Thanks

RSI Chart for Bitcoin	RSI Chart for Ethereum	RSI Chart for Ripple	RSI Chart for Litecoin	RSI Chart for Monero	RSI Chart for Zcash	RSI Chart for DASH	RSI Chart for NEO	RSI Chart for Cardano	RSI Chart for Stellar

If you want, please enter your thoughts on the RSI chart that you looked at in the space below:

Here is an example on how to complete this RSI comment: "oversold now at an RSI near 20 (means a buy indication ONLY IF you are long term positive on the fundamentals of this cryptocurrency based on your research in the many many steps completed above me on this report" ....or.... "overbought now at an RSI near 80 (means I might consider taking a bit of profit if I own this cryptocurrency and buy that small amount back at a lower RSI....or if you want to start a position, then it might not be the right time given how overbought the RSI indicator suggests."   [Please read the contents of the yellow box below thanks.]

I have to stress again, that in general, please be more long term-focused so we can be long-term owners and not merely "tourists" or "renters" of any investment. If we do our thorough research on any investment, then we are more likely to be longer-term focused (if we like the fundamentals based on our research process). This will ensure that we don't sell at the worst time and vice versa like most investors do (which often creates opportunities for the better informed investors to profit in the long run). Of course, and as a disclosure, positive returns are not guaranteed by this course...I just want to help you understand how to research investments. Thanks