Know your Market

Steven Maharaj

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Chapter 1

Introduction

Ethereum (ETH) is an is the second biggest crypto-currency (crypto) following Bitcion (BTC). ETH is programmable, so one can also use it apps, games, digital contracts (smart contracts).

Chapter 2

Background

2.1 Who are the main participants in this product?

ETH is used by individuals, Developor and enterprises.

2.2 Where are they from?

The advantage of using ETH over more traditional currency is that it allows direct transfer of funds without any intermediate parties thus, reducing transaction fees. In addition, ETH also allows for more accessible banking services for example borrowing.

ETH is extremely secure and private, applications created on the ethereum network protect user information from third parties. Governments or companies are unable to censor information on the ETH network as it is decentralised.

Developers use ETH to create applications and smart contracts. A smart contract is a computer program executed under some pre-specified conditions by the parties. For example, an individual may wish to purchase items online. Said individual can send funds to a smart contract then once the items have arrived at the individual doorstep the postman may scan the item and the funds will be released to the sender.

Enterprises see if ETH favourably because it provides a secure network for business operations such as making payments. ETH provides a protocol infersturce for tasks such as issuing or verifying credentials and allows for features enabling privacy, permissioning and performance. [1]

Big banks, tech giants, and other organizations including J.P. Morgan Chase, Microsoft, and Intel are uniting to build business ready versions of the software behind Ethereum. Its ability to record and execute transactions without the need of a middleman is making this blockchain technology more popular amongst businesses. [2]

2.3 What is their main agenda and what is their typical trading style?

ETH can be used as a long-term investment and shorter term trading instruments. Long-term investors will use ethereum to diversify their portfolios and engage in secure transactions without a middleman. In contrast to that short term traders seek to make profits in small movements of the price of ETH. They will trade on Spot and derivative exchanges. Retail traders and institutions trade cryptos and their derivatives.

According to a recent report by coin news most parties that trade BTC are retail but professional traders dominate most of the market. These professionals account for more than four fifths of all bitcoins sent to exchanges. [3]

2.4 What creates supply and demand for this asset?

In addressing this question we will discuss the supply and demand of cryptos in general. Cryptocurrencies either have a limited or predetermined coin supply and so it is a deflationary asset. Since there is a limited supply of cryptocurrency this will increase demand and eventually drive prices up.

The main factors that drive supply in demand in the crypto market are media coverage, pumping and dumping schemes, marketing schemes, community support, trading bots, innovation and regulation. [4]

- Media coverage - Media coverage can bring awareness or influence the perception of certain cryptocurrencies in the market. For example a positive review of a cryptocurrency will have more buyers therefore, increasing price.
- Pumping and Dumping - Pumping refers to a rise in price while dumping refers to a fall in price. Since prices are affected by supply and demand one can manipulate the prices via pumping and dumping schemes. A concentrated effort to match all the open orders on a particular crypto across several exchanges will create an artificial shortage. When the market adjusts, the price shoots up. Large holders of that crypto can then cash in on the gains by dumping their coins, bringing the price down.
- Marketing schemes - Influencers can disseminate information about coins via various media outlets. If coins have a high coverage the market is more aware of their existence. Hence, there will be more buyers driving the price up. Price can also fall if the influencer disseminates negative information about the coin.
- Community support - A cryptocurrency with good community support and a strong vision for the future will thrive in the crypto markets as the project will bring value to members of that community.
- Trading Bots - Trading bots are very easily scalable so a program can command many bots to artificially inflate or deflate the price of a certain cryptocurrency.
- Innovation - Developers can add new functionality to particular coins. The new functionality will make the coin more valuable thus driving the price up.
- Regulation - Governments have control about the rules of cryptocurrency trading within their country hence impacting the utility of a certain coin. For example the chinese government has banned ICOs and Chinese based financial institutions are not allowed to deal in or fund cryptocurrencies.

2.5 What's are the tick increments and contract specifications for this product?

For the ETH-PERPETUAL Deribit contract the tick increments are 5 cents.
The list below shows the product specification for ETH-PERPETUAL on Deribit.

- Underlying Asset/Ticker - Deribit ETH Index
- Contract - 1 USD per Index Point, with contract size USD 1
- Trading Hours - 24/7
- Minimum Tick Size - 0.05 USD
- Settlement - Settlements take place every day at 8:00 UTC. Realized and unrealized session profits (profits made between settlements) are always added in real-time to the equity, however, they are only available for withdrawal after the daily settlement. At the settlement, session profits/losses will be booked to the ETH cash balance.
- Contract Size - 1 USD
- Initial Margin - The initial margin starts with 2.0% (50x leverage trading) and linearly increases by 1% per 5,000 ETH increase in the position size. For example

  Initial margin = 2.0%+(Position Size in ETH) $*0.0002\%$
- Maintenance Margin - The maintenance margin starts with 1% and linearly increases by 1% per 5,000 ETH increase in the position size.
- Mark Price - The mark price is the price at which the perpetual contract will be valued during the trading hours. This can (temporarily) vary from the actual perpetual market price in order to protect market participants against manipulative trading.

  Mark Price = Index price + 30 seconds EMA of (Perpetual Fair Price − Index Price)

  The perpetual fair price is the average of bid and ask price for 1 ETH size order
- Delivery/Expiration - No Delivery / Expiration
- Fees maker - 0.00%, taker - 0.05%. However, for cryptoprop traders the maker rebate is 0.01% while the taker fee is 0.037%.

- Position Limit - Maximum allowed position is 10,000,000 contracts (USD 10,000,000). Portfolio margin users are excluded from this limit and can build up larger positions. On request, the position limit could be raised based on an account evaluation.

2.6 What other products are closely correlated?

2.7 Where is most of the volume done on this product? exchange, product type, future, perp etc

2.8 What is the mark price and how do you calculate it?

2.9 Explain the effect of a positive funding rate on a long and short position.

2.10 Explain the effect of a negative funding rate on a long and short position.

2.11 If your account has 10BTC and you buy with 100,000 lots ($) worth at the BTC price of 10,000 with 10x leverage. At what price will your account get liquidated? (keeping in mind your margin is in btc)

2.12 Explain the difference between Deribit and Bitmex indices.

2.13 What is DeFi and what are the lead applications.

2.14 If you buy 100.000 bitmex contracts for Ethereum how much is that in $?

2.15 What is a stop limit and what is a stop market order? Give an example of when and how each can be used.

Chapter 3

Statistics

3.1 What is the average daily range.

3.2 What is the average daily volume.

3.3 What would you define as a low volume days?

3.4 What is the average weekend range.

3.5 What affect does an increase in open interest have on price?

3.6 What affect does a decrease in open interest have on price?

3.7 Does any relationship exist between open interest and price?

3.8 What is the average session range and volume - asia euro usa.

3.9 Work out the ATR of Eth in excel and read the ATR pdf.

3.10 Work out the distribution of returns and read the pdf.

3.11 What is the most common time of day for price movements.

3.12 What are the most common times with the most volume.

3.13 Is beginning of the month typically quieter then end of month?

3.14 List of days where it trades greater then its Standard deviation, check (1SD, 2SD, 3SD)

3.15 Is the market more likely to go up or down?

3.16 How does the market move when it is $> 5\%$ move in a day

3.17 How does the market move when its $> 10\%$ in a day

3.18 How does it move when its under $< 5\%$?

3.19 What are the days before and after like of both $> 5\%$ and $< 5\%$ and $> 10\%$

3.20 Does it tend to trend or range more?

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3.21 Do stationary test

3.22 If you used the POC as the fair value for the next trading day, how often does price come back to test this area? (Point of Control)

3.23 Does over average in volume generally relate to bigger price movements? Does this generally last for more then one day?

3.24 Average transactions on the network per day

3.25 Does increase in transactions increase demand and price?

Chapter 4

Fundamental

4.1 Is there any news that drivers eth or btc

4.2 What does risk on / risk off mean?

4.3 How does this market react to risk on / risk off scenarios

4.4 Look into what caused the biggest moves (moves over 10% over the past 3 years)

4.5 When do options expire? what effect does this have?

4.6 What effect does this have on the market in the lead up to and the day of?

Chapter 5

Technical

5.1 What is the average size of a move: Small, medium, large.

5.2 Most amount of candles in a row with one color

5.3 Does the market respond to triangles / wedges?

5.4 Does the market respond to flags? bull flags vs bear flags, flat flags.

5.5 Are double top / bottoms good? are head and shoulders patterns good?

5.6 Ascending channel vs descending channels

5.7 Does the market fill the CME gap from the weekends trading? If so what are some statistics around this?

5.8 Are weekends more likely to trend or range?

5.9 How does changes in volume affect the market

5.10 Does volatility drop and volume drop at the same time or do they move inline

5.11 Do liquidations occur with or against the trend

5.12 When it ranges how big are the moves and what size reversions do they have?

5.13 When it goes quiet what sort of ranges and volumes does it do right before a big move?

5.14 When we have days of abnormally low volume what type of days do we see after this?

5.15 Once it has a big move (define this) what does the following 5 days look like

5.16 What does the next 12, 24 hours look like after a large move?

5.17 Are moves more likely to retrace or continue on longs or

Bibliography

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[4] How are crypto prices determined? https://coinrivet.com/guides/what-is-cryptocurrency/how-cryptocurrencies-maintain-their-prices/.