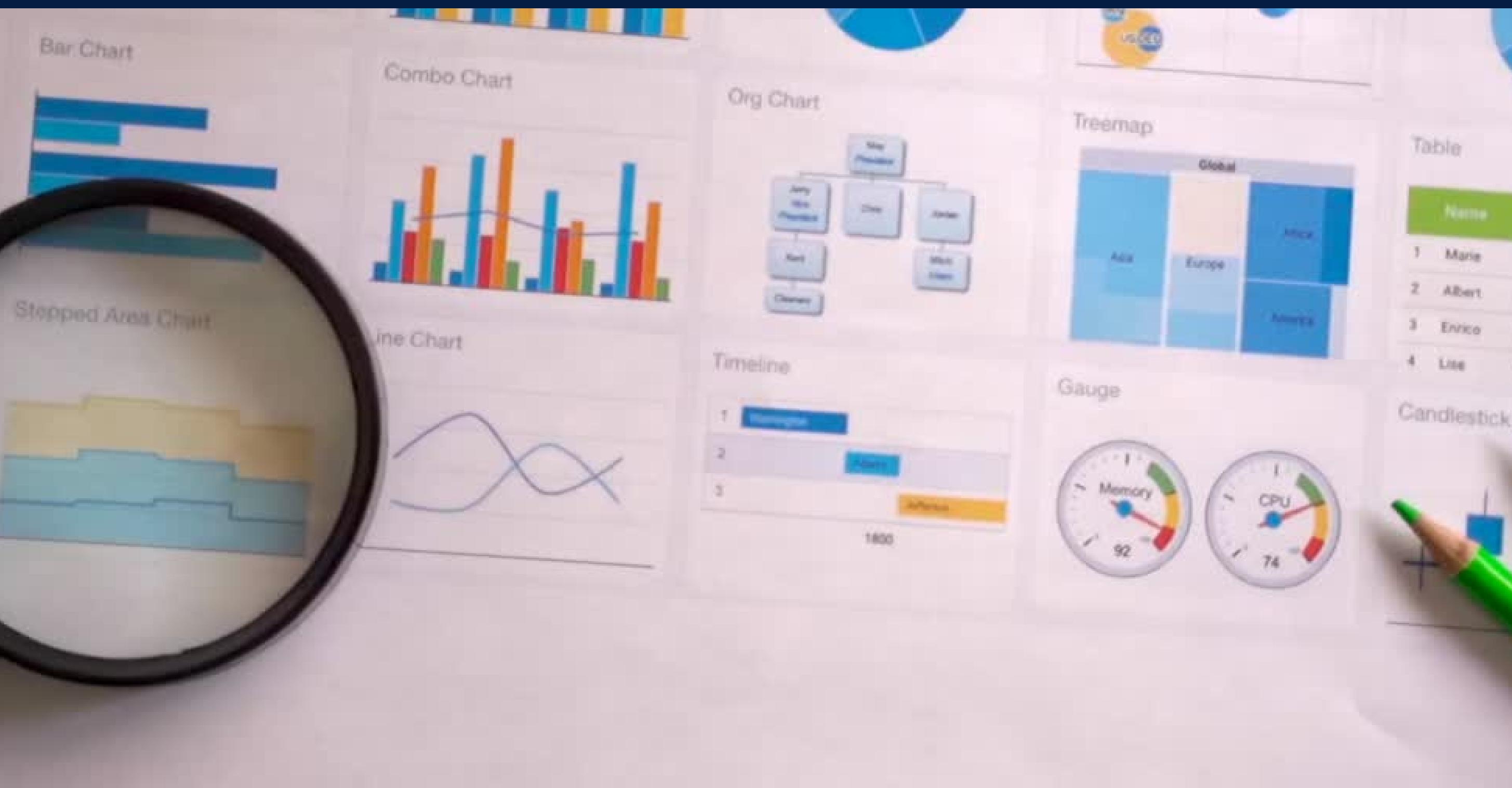


Data Science And Business Presentation



SOHAM SANJAY VAIDYA
MAYFRED KEKELİ NORGBEY
ALLİA ASTRİD OLVİGA
OKTAY BERKE HAKTANIRLAR
HERNAN MAURÍCIO LEON
BARRETO
CAROLYN GUNDİM
SURABHİ SANGORE
ARBAAZ KHAJA QUTUBUDDİR
FERİT DOĞA ÖZDİL
DEVARSH RAJESH BENDE

Overwiev Of Data Analaysis

01

Collect Data

02

Clean Data

03

Specify The
parameters

04

Choose Best
Visualisitions

05

Follow the
index of the
market

06

Prediction



Overview Of Market Research

01

Research

02

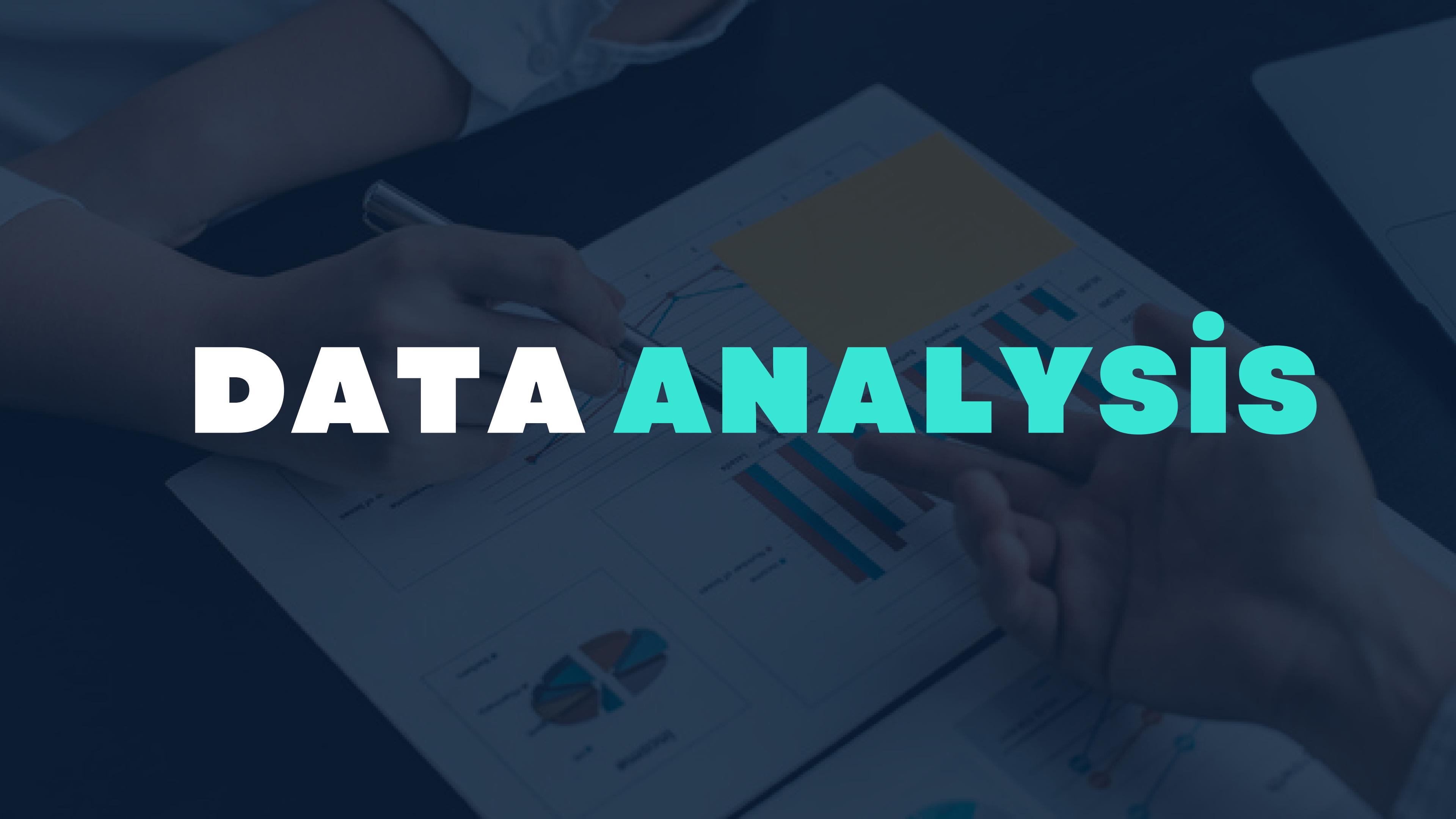
Elimination
Of Sources

03

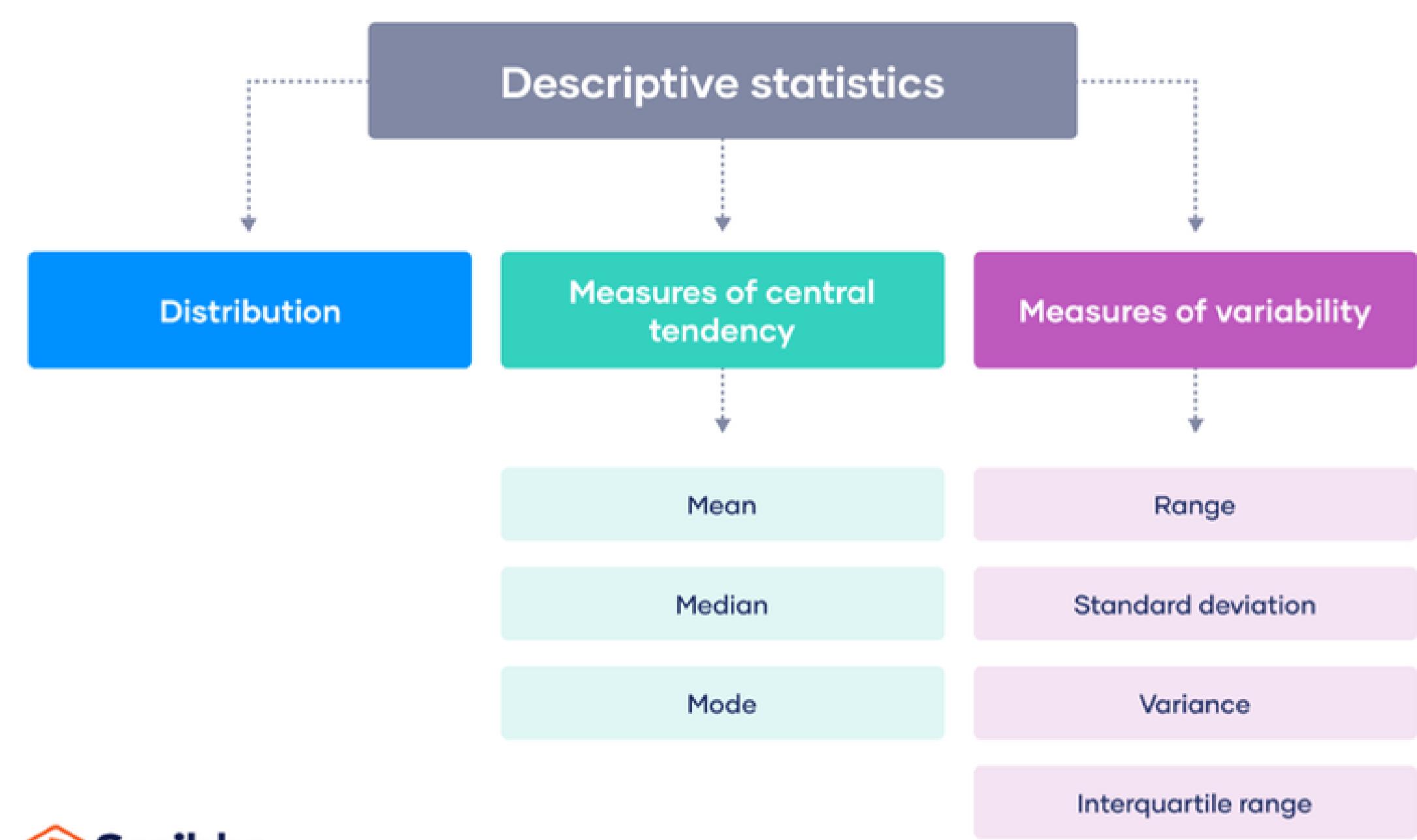
Answer Through
Results



DATA ANALYSIS

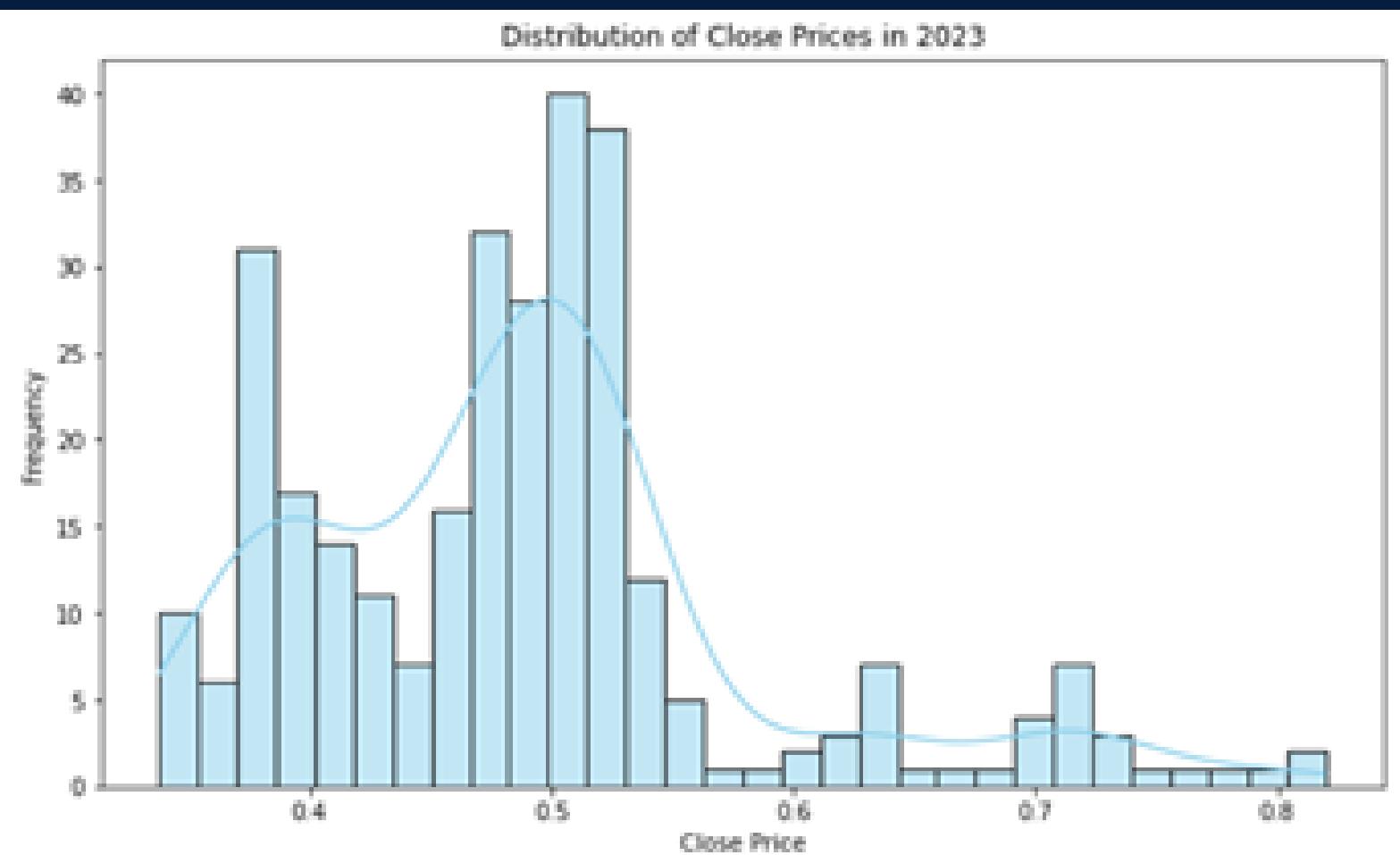


Data Cleaning And Descriptive Analysis



Main Results (Descriptive)

2023



2022:

- Max price: 0.87
- Min price: 0.31

2023:

- Max price: 0.81
- Min price: 0.34

1. First Win (Partial Victory):

- Ripple won a partial victory when a judge ruled that the company had not violated existing securities laws by selling XRP to exchanges for retail investors.
- However, the judge found that Ripple did break the law by selling XRP directly to institutional investors.
- Despite being a partial victory, this decision caused a significant positive impact on XRP's price, leading to an overnight increase of over 80%.

2. Second Win:

- Another victory occurred when a judge blocked the SEC's attempt to appeal the ruling.
- This legal development further contributed to positive price action for XRP.

3. Third Win (October):

- In October, the SEC dismissed its own case against the CEO and executive chairman of Ripple.
- This was another favorable outcome for Ripple in its legal battle with the SEC.

RSI:



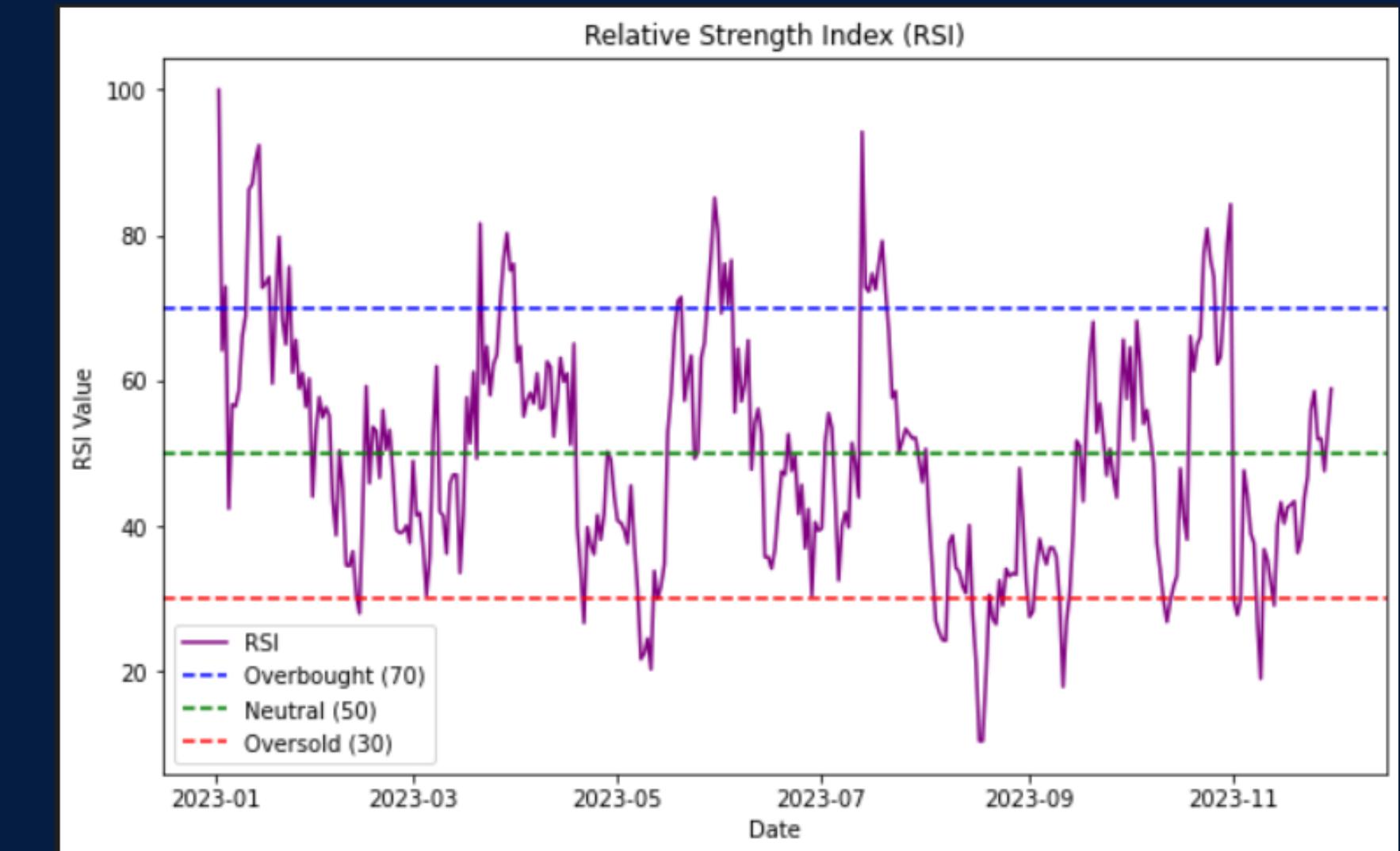
So to summarize what we have done ,

- Calculated the price changes
- Separated the positive and negative changes
- Understood EMA of gains and losses over n=14 periods
- Calculated relative strength of gains vs losses using the RSI Formula.



The values extend from 0 to 100. A few key edge levels:

- Over 70 is considered overbought
- Underneath 30 is considered oversold
- 50 is neutral



for example, let's consider the following values

- 25/11/2023: RSI was 51.93, which is slightly neutral
- 26/11/2023: RSI was 52.04, still slightly neutral.
- 27/11/2023: RSI decreased to 47.56, a little below neutral
- 28/11/2023: RSI increased to 53.38, slightly above the neutral zone.
- 29/11/2023: RSI went up to 58.87, fairly above neutral approaching the overbought zone.

This shows the cost is near the neutral zone over the final 5 days.

Let's compare the distribution and boxplots of Close Prices for the years 2022 and 2023 based on the information you provided:

Comparison Analysis:

- The mean close price decreased slightly from 2022 (0.51) to 2023 (0.49).
- The median also shows a slight decrease from 2022 (0.42) to 2023 (0.48).
- The standard deviation decreased, indicating potentially lower volatility in 2023 compared to 2022.
- The interquartile range (IQR), represented by the difference between Q3 and Q1, appears to be smaller in 2023 (0.52 - 0.41) compared to 2022 (0.70 - 0.36), further suggesting reduced dispersion in the data.
- Overall, these comparisons suggest that while there was a decrease in both the mean and median close prices from 2022 to 2023, there might be less volatility and a more concentrated distribution of close prices in 2023. It would be important to consider these trends in the context of your financial analysis or decision-making process.

Exploratory Analysis

What is trend in price data?

Close values are obtained from 01.01.2023 until 10.12.2023.

- 1) Positive sentiments driven by news, media trends, and public perceptions.
- 2) Adoption and a wider range of use cases can stimulate the demand. Eg. Ripple lab's expansion into Brazil and Australia indicated positive growth potential.
- 3) Ripple vs SEC lawsuit.
- 4) Strategic Partnership
- 5) Enhanced market liquidity
- 6) Geopolitical events
- 7) Technological advancement



Rolling mean and volatility computed to see how they change over time:

Increasing rolling mean shows an upward trend, while higher volatility indicates larger swings.

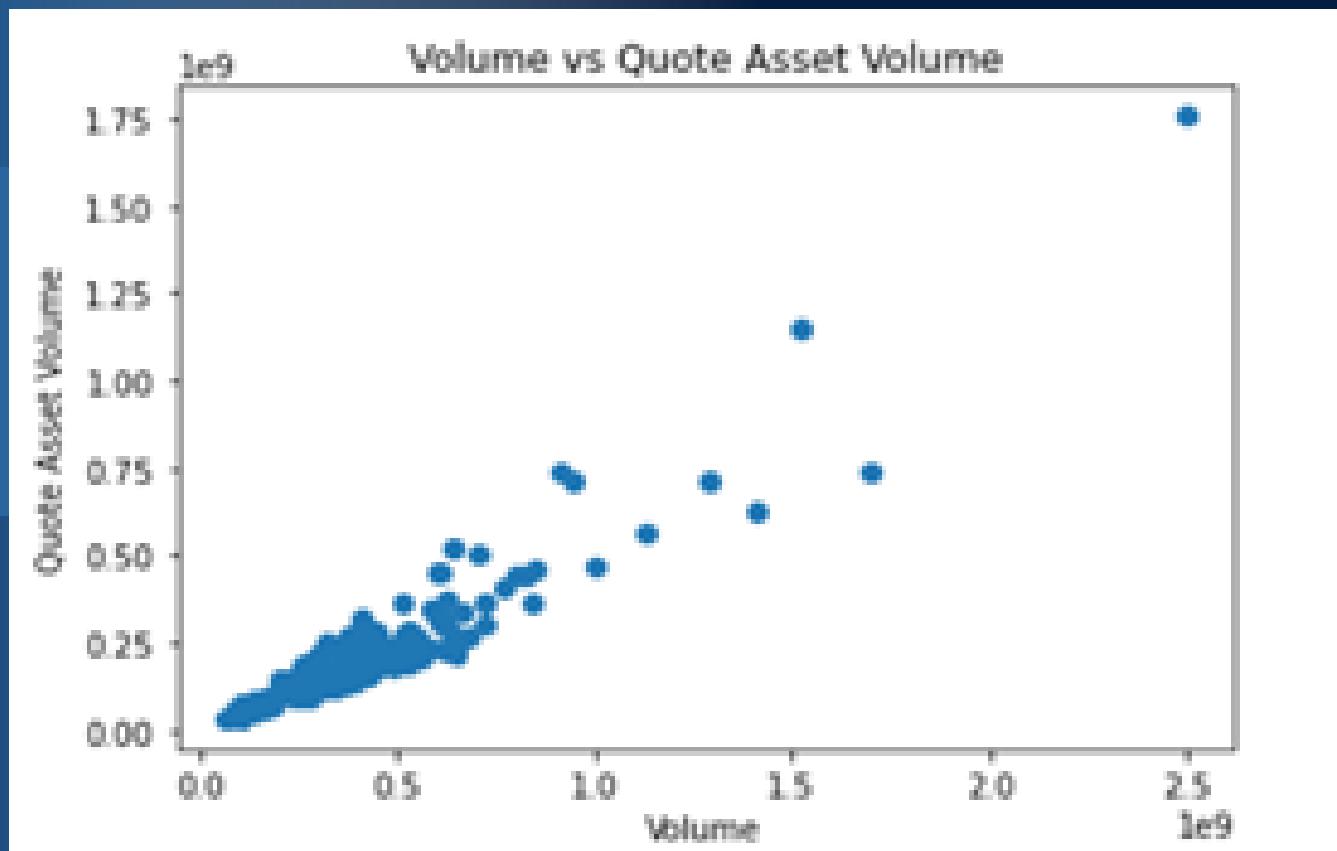
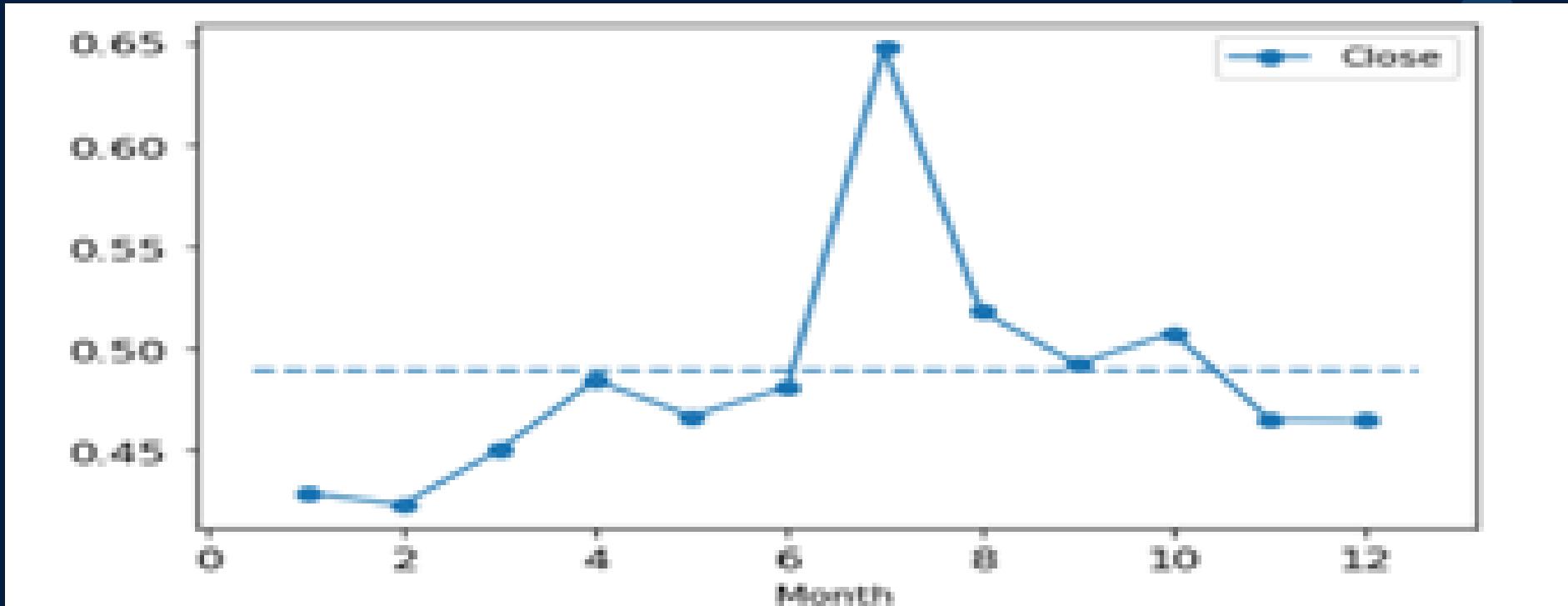
Conclusion

- Are there certain days in the month when volume is higher/ lower than normal?

“Volume” values median was found as $3.296351e+08$. From the median, a line is drawn to show which days of the month are higher and lower. For example, the day 13th is the lowest day and the 10th day is the maximum.

- Are there certain months where prices are higher / lower than normal?

Price distribution by month visualized. As seen from the graphs July is the highest and the February is the lowest.



- Is there a correlation between “Volume” and “Quote Asset Volume”?
- The correlation coefficient calculated as: 0.94



MARKET RESEARCH

Will XRP be the world reserve currency and backed by Gold for a stable prize? Ripple director's take and lawsuit update



By BHUSHAN AKOLKAR — 27. February 2023



Edited by MARCEL KNOBLOCH 27. February 2023

3 Mins Read



The Ripple ([CRYPTO: XRP](#)) cryptocurrency rode a roller coaster in 2023. Starting the year at \$0.35 per token, the international payment system's operating coin rose as high as \$0.82 before dropping back down to \$0.62. These sharp trend changes made the S&P 500 (SNPINDEX: ^GSPC) and Nasdaq Composite (NASDAQINDEX: ^IXIC) indices look sleepy by comparison, even though the market trackers delivered gains of historic scale last year:

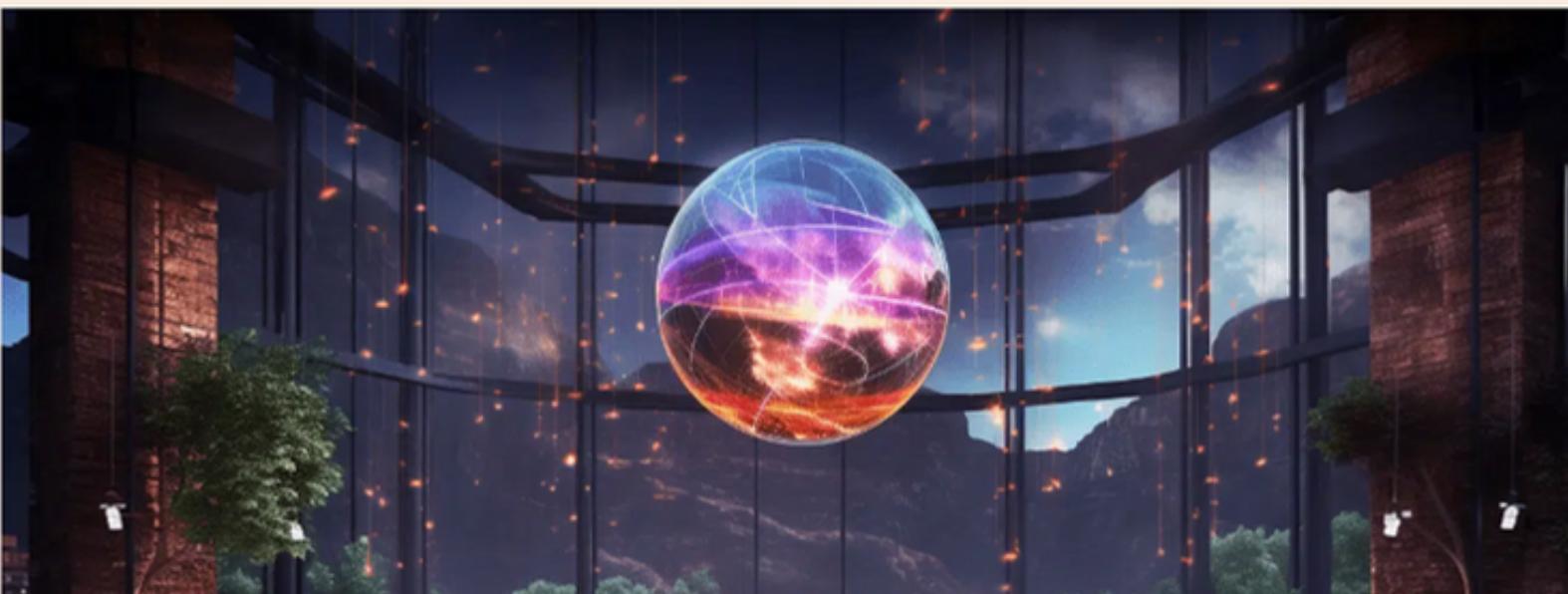


News Around The World

Is XRP Backed by Gold or Can It Ever Be in the Future?

5min Read

Explore the myths and realities surrounding XRP's value. Is it backed by gold or can it ever be? Understand the complexities and future possibilities for this unique digital currency in our comprehensive blog.



Would XRP be the new global standard, backed by silver, gold precious metals, especially when it's going through a lawsuit?

XRP as Global Standard:

- Unlikely
- Centralization concerns
- Ongoing SEC lawsuit
- Lower public perception than Bitcoin

Legal Victories and Legitimacy:

- Enhance XRP's legitimacy
- Do not guarantee replacement of established standards

Outcome Factors:

- Legal battles
- Ongoing regulatory developments

Future Acceptance:

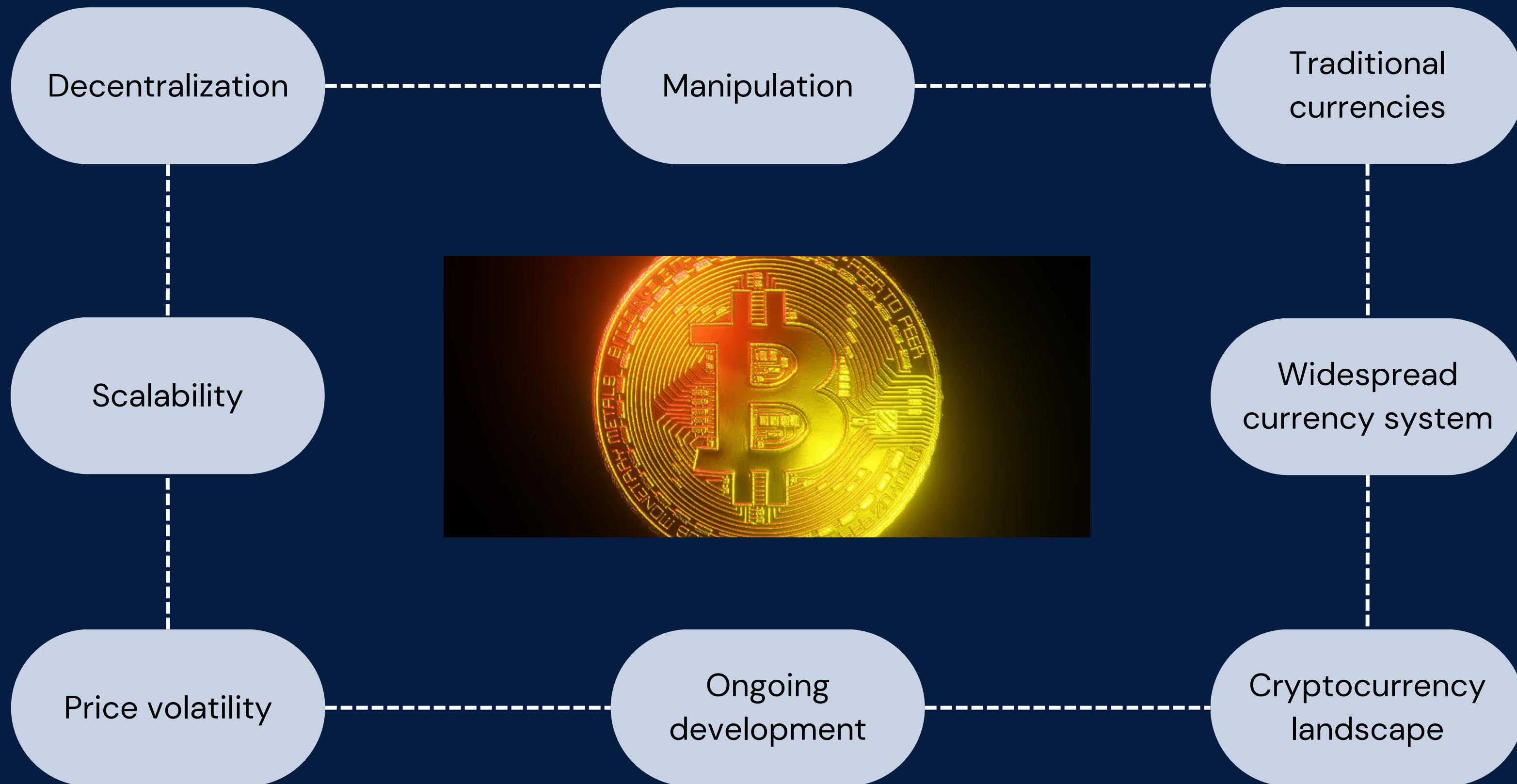
- Shaped by legal outcomes and regulatory changes

Regulatory Clarity:

- Crucial for public confidence
- Complex considerations for broader adoption
- Replacing traditional currencies



Can the same be applied to Bitcoin?





What are the strong indicators for Ripple and its XRP Ledger growing into a global banking system?

Ripple's Goals:

- Revolutionize banking and finance
- Quick and affordable transactions
- Potential SWIFT network replacement

Innovations:

- "Liquidity Hub" for cryptocurrency trading
- Aggregated liquidity pools
- Streamlined digital asset management system

Support for Ecosystem:

- \$250 million creator fund for NFT creators
- XRP Ledger

Target Audience:

- Businesses and financial institutions

XRP's Uncertain Potential:

- Lawsuit impact on global standard potential
- Ongoing legal proceedings
- Regulatory decisions impact

Expansion Areas:

- DeFi
- Metaverse
- NFTs

Also For Bitcoin

Bitcoin: Decentralized, scarcity, security, market demand

XRP: Legal and regulatory factors, Ripple, global banking system

Factors for Ripple's growth: Adoption, integration, regulatory clarity, scalability

Factors for Bitcoin's growth: Acceptance, institutional investment, regulatory clarity, scalability, speed, community support

Monitoring: Crucial, evolving paths.



What would be major risks, exposures, and restraints within a governmental XRP/ Bitcoin Ledger banking system from the citizen's (businesses, consumer) perspective?

XRP/Bitcoin Ledger Banking System Risks:

- Price volatility
- Market manipulation
- Concerns about sudden value fluctuations

Security Concerns:

- Cyberattacks
- Loss of funds
- Concerns about system security

Regulatory Uncertainty:

- Evolving cryptocurrency laws
- Government's position impact
- Impact on XRP/Bitcoin value

Private Key Risks:

- Residents responsible for key safety
- Potential loss
- Accessibility challenges for non-experts

Consumer Protections Absence:

- Limited protections
- Dispute resolution challenges
- Risk of unintentional loss

Transaction Speed:

- Slower than traditional methods
- Concerns for businesses and consumers

Adoption Challenges:

- Education needed
- Unfamiliarity with cryptocurrency operations
- Task of getting people, companies, and consumers to embrace XRP/Bitcoin

Accessibility and Inclusivity:

- Technology and internet dependency
- Exacerbation of the wealth gap
- Limited access for those without resources

Government Responsibilities:

- Clear regulations needed
- Educational materials for citizens
- Improved security measures

When do you predict a wealth transfer from the current system to a new system to be finalized?

Wealth Transfer Timing Prediction:

- Extremely challenging
- Complex and gradual process
- Influenced by multiple factors

Factors Influencing Wealth Transfer:

- Technological innovation
- Economic events
- Environmental and energy transitions
- Societal and cultural shifts
- Geopolitical events

Difficulty in Pinpointing Timing:

- Coexistence of old and new systems
- Extended periods of transition
- Traditional financial systems alongside emerging technologies

Uncertain Timeline:

- Varies by region and industry
- Influenced by numerous factors
- Difficult to predict finalization

Examples of Influential Events:

- Technological revolution
- Great Recession
- Financial regulations like Dodd-Frank
- Gender balance initiatives
- Environmental regulations like Paris Agreement

Adaptation and Informed Decision-Making:

- Stay informed about economic trends
- Adapt to changes
- Make informed financial decisions

Examples :

Plastic currency monetary system to mobile transfer monetary system:

Transition Overview:

- Plastic currency to mobile transfer
- Tech innovation in the 2000s
- Shift from physical to digital transactions

Key Milestones:

- Mobile phones common by the start of 2000s
- 2002: M-Pesa launched in Kenya by Safaricom and Vodafone
- 2007: PayPal launched in the US and UK
- 2011: Google Wallet launched, integrating debit and credit cards

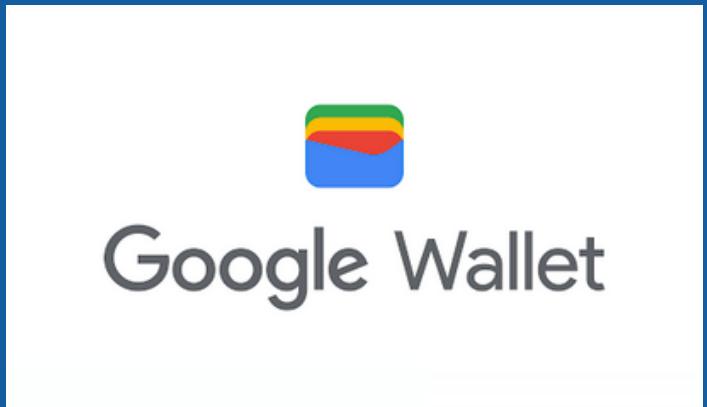


Factors Driving Evolution:

- Tech innovation
- Demographic shift
- Geopolitical events
- Societal and cultural changes
- Regulatory changes

Mobile Payments Growth:

- Fueled by smartphone uptake
- High-speed mobile data networks
- E-commerce growth



Does your research indicate the emergence of a new currency, like BRICS led or will the dollar still remain?

De-dollarization Definition:

- Initiatives to lessen USD dominance
- Global finance and governance
- Seeking alternatives for international trade and primary currency

Vladimir Putin's View:

- "Gaining pace"
- "Irreversible"

BRICS Group Initiatives:

- Aim to reduce USD dominance
- Recent geopolitical shifts
- Growing tensions with the West, Russia, and China
- Economic considerations driving motivation

Options Considered by BRICS:

- Unlikely creation of a separate BRICS currency
- Greater use of local currencies in trade
- Trading with India in rupees
- Basket of currencies from BRICS countries
- Skepticism about feasibility
- Mention of gold or cryptocurrencies as potential alternatives
- Considered less likely due to risks and limitations

Timeline for USD Collapse:

- Still used in some global transactions
- Regulations in countries like China and India on cryptocurrency trading
- Possibility of amendments in laws for trade facilitation

Foreseeable Future Outlook:

- BRICS exploring alternatives
- Dollar expected to remain dominant
- USD's continued use in the foreseeable future

Crypto salvation

The COVID-19 crisis accelerated digital adoption, driving remote work and innovative business models. RSI surged, signaling a robust uptrend with potential correction concerns.



Emerging business models:

1. **Remote Work:** Digital solutions for productivity.
2. **Online Dating:** App growth due to increased loneliness.
3. **Virtual Shopping:** Streetify brings high-street shopping home.
4. **Virtual Wine Tasting:** Club Vino offers at-home experiences.
5. **Online Art Auctions:** Galleries adapt to new consumer behaviors.
6. **Online Fitness Classes:** Significant growth in fitness app downloads.

Despite challenges, historical data indicates market recovery post-disruptions.

Industry performance during the 2020 recession:

- Healthcare (Regeneron, Gilead): Resilient due to essential services.
- IT (Citrix, NortonLifeLock, NVIDIA): Thrived with remote work and cybersecurity demands.
- Real Estate (Digital Realty, SBA Communications): Grew with remote work and 5G trends.
- Communication Services (Netflix, telecom firms): Flourished with increased subscriptions.
- Consumer Staples (Clorox, Kroger, Costco): Performed well due to essential products.

Essential goods and services industries typically show resilience during economic downturns.

THANKS FOR WATCHING