

Cryptocurrency Market Analysis Report

1. Introduction

This report presents a comprehensive analysis of the top 50 cryptocurrencies based on market capitalization. The data is retrieved using the CoinGecko API and continuously updated every 5 minutes in a live Google Sheets document. The primary objective of this study is to track real-time cryptocurrency price fluctuations, market dominance, and trading activity to provide actionable insights into the crypto market.

By leveraging **Google Sheets integration**, users can access real-time data effortlessly over the cloud. The report highlights key patterns, including price changes, market capitalization shifts, and asset performance, to assist in making informed financial decisions.

2. Data Collection

The live data was collected using the CoinGecko API with the following key query parameters:

- **vs_currency**: USD (prices are in US dollars)
- **order**: Sorted by market capitalization (market_cap_desc)
- **per_page**: 50 (retrieving top 50 cryptocurrencies)
- **price_change_percentage**: 24h (tracking percentage change in the last 24 hours)
- **locale**: English (default language)

Integration with Google Sheets

To facilitate real-time tracking, the collected data is pushed to a **Google Sheets document** every 5 minutes using the `gspread` library in Python. The Google Sheets document provides a structured and interactive view of the latest market data without physically downloading Excel sheet.

The dataset includes the following key attributes:

- **Name**: The full name of the cryptocurrency (e.g., Bitcoin, Ethereum).
- **Symbol**: The ticker symbol used for trading (e.g., BTC, ETH).
- **Current Price**: The latest market price in USD.
- **Market Capitalization**: The total market value of the cryptocurrency, calculated as price × circulating supply.
- **Total Volume**: The 24-hour trading volume, representing the total value of trades executed.

- **Price Change Percentage (24h):** The percentage change in price over the last 24 hours.
- **Fully Diluted Valuation:** The estimated market cap if all tokens were in circulation.
- **High (24h):** The highest recorded price in the past 24 hours.
- **Low (24h):** The lowest recorded price in the past 24 hours.
- **Market Cap Change Percentage (24h):** The percentage change in market capitalization over the last 24 hours.

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A	B	C	D	E	F	G	H	I	J	K					
name	symbol	current_pr	market_cap	total_volume	price_change_percentage_24h	fully_diluted_valuation	high_24h	low_24h	market_cap_change_percentage_24h						
Bitcoin	btc	95999	1904653633329.00	31279033470	-1.53512	1.90465E+12	98467	96018		-1.48057					
Ethereum	eth	2632.83	317977979272.00	17931217482	-1.86228	3.17978E+11	2721.66	2634.99		-1.57199					
Tether	usdt	0.999957	141876785140.00	31573702332	-0.01977	1.41877E+11	1	0.999939		0.16588					
XRP	xrp	2.42	140234810827.00	4138287687	-0.7089	2.42745E+11	2.52	2.41		-0.39277					
Solana	sol	197.62	96694566442.00	4447619112	-2.90827	1.17637E+11	205.73	197.31		-2.69897					
BNB	bnb	630.98	92253204077.00	1339913172	3.16663	92253204077	643.91	609.73		3.42021					
USDC	usdc	0.999978	56332261473.00	6049645913	0.00731	56334288165	1	0.999893		-0.0766					
Dogecoin	doge	0.253901	37680128225.00	1504279639	-0.27349	37689183569	0.26874	0.252905		0.35574					
O Cardano	ada	0.763792	27562666270.00	1574842197	8.36343	34539417905	0.815007	0.69973		9.0997					
Lido Staked Ether	steth	2632.01	24774069500.00	81835188	-1.67881	24774069500	2720.09	2633.02		-1.49979					
TRON	trx	0.243139	20981753885.00	742374431	0.36326	20981769731	0.248665	0.24173		0.91479					
Wrapped Bitcoin	wbtc	95738	12382152344.00	251346051	-1.55747	12382152344	98272	95752		-1.34116					
Chainlink	link	18.68	11949511620.00	539249401	-0.72076	18726707685	19.74	18.65		-0.27748					
Wrapped stETH	wsteth	3141.3	10560010704.00	52969273	-1.80861	10560010704	3244.99	3143.42		-3.13129					
Avalanche	avax	25.45	10502158359.00	346742675	-0.61188	11479627110	26.94	25.44		-0.33414					
Sui	sui	3.35	10386248626.00	1321370047	2.7007	33615640486	3.56	3.2		3.18288					
Stellar	xlm	0.322408	9897055516.00	351796448	1.84127	16179136565	0.337512	0.311169		2.2346					
Toncoin	ton	3.76	9409524564.00	143273057	-1.60541	19324651750	3.9	3.76		-1.31985					
Shiba Inu	shib	1.572E-05	9289087349.00	246634591	-1.31743	9293081349	1.64E-05	1.57E-05		-0.98854					
Litecoin	ltc	122.35	9269478720.00	1893557163	2.10651	9269764865	131.29	118.74		2.14144					
LEO Token	leo	9.8	9059889038.00	489851	-0.91395	9658843381	9.93	9.74		-0.815					
Hedera	hbar	0.231791	8895052263.00	299148886	-1.6164	11622194905	0.248042	0.230902		-1.343					
USDS	usds	0.999631	8534940275.00	12130636	-0.10244	8527648657	1.004	0.997137		2.18799					
Hyperliquid	hype	23.49	7860943493.00	123328807	-1.39303	23540594739	24.89	23.21		-1.21277					

3.1 Top 5 Cryptocurrencies by Market Capitalization

Rank	Name	Symbol	Market Cap (USD)
1	Bitcoin	BTC	1,904,653,633,329
2	Ethereum	ETH	317,977,979,272
3	Tether	USDT	141,876,785,140
4	XRP	XRP	140,234,810,827
5	Solana	SOL	96,694,566,442

Top 5 Cryptocurrencies by Market Cap:		
	name	market_cap
0	Bitcoin	1895304529244
1	Ethereum	315740771526
2	Tether	141872515556
3	XRP	138779184400
4	Solana	95991737828

3.2 Average Price of Top 50 Cryptocurrencies

To understand the overall market trend, we calculated the **average price** of the top 50 cryptocurrencies:

The **average price** of the top 50 cryptocurrencies is approximately **4160.14** USD (calculated on 23:46 11-02-2025)

3.3 Highest and Lowest 24-Hour Price Changes

Cryptocurrencies experience significant volatility. The highest and lowest **24-hour percentage price changes** in the dataset (calculated on 23:46 11-02-2025) are:

- **Highest Price Change (24H):** (Cardano, 8.36%)
- **Lowest Price Change (24H):** (Official Trump, -5.04%)

3.4 Market Trends and Observations

- **Bitcoin (BTC)** remains the leading cryptocurrency, with a circulating supply of **19.04M BTC** and a market dominance of over **50%**.
- **Stablecoins like Tether (USDT) and USD Coin (USDC)** continue to have high trading volumes, indicating their increasing use in transactions.
- **High Volatility:** Some altcoins experience rapid price swings, with over **10% fluctuations** in a single day.

4. Conclusion

This analysis provides a real-time snapshot of the cryptocurrency market. **Bitcoin remains the dominant player**, while altcoins exhibit **strong volatility**. The integration with **Google Sheets** enhances accessibility, allowing users to track live data updates and gain valuable insights into market trends.

 [Access Live Google Sheet Here](#)  [Crypto Live Data](#)

**The Google sheet is updated when the script is running, to continuously update the sheet day and night the script must run all the time which requires a cloud server. Currently, I cannot arrange a cloud server so I am running the script locally which is updating both the Google Sheet and the Excel sheet.*

