

BITCOIN HALVING

MAY 12, 2020

PANTERA

Bitcoin Halving

CONFERENCE CALL

A discussion of the "Bitcoin Halving" and its implications on the current and future state of the cryptocurrency markets.

Agenda

- Prepared Remarks
- Open Discussion



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Bitcoin Halving 101



Bitcoin Mining

PROOF-OF-WORK

Bitcoin miners provide security to the bitcoin blockchain through an energy and computationally-intensive process called Proof-of-Work (PoW).

In bitcoin's PoW network, miners confirm transactions on the blockchain by producing new blocks containing a record of those transactions every 10 minutes.

What's the incentive for miners?

BITCOIN BLOCK REWARD

The block reward is an allotted number of bitcoins rewarded to the miner who produces the next block in the bitcoin blockchain.

Miners must purchase expensive hardware and pay for electricity to run their machines – both block rewards and transaction fees cover these costs plus (hopefully) provide some extra profit.

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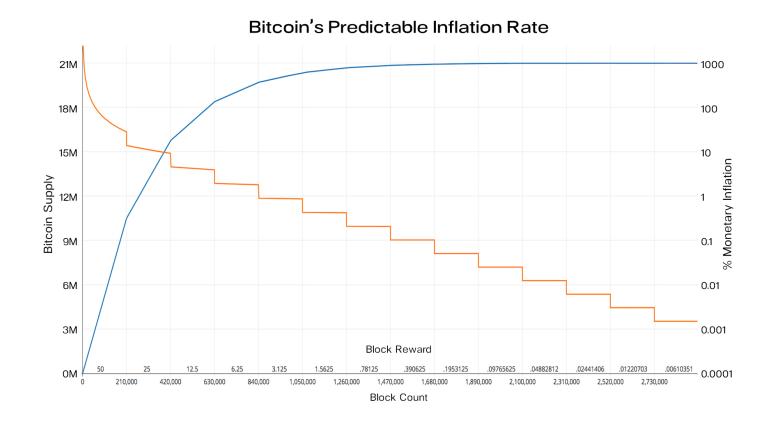
Bitcoin Halving

WHAT IS IT?

Bitcoin money supply is fixed and known.

Every ten minutes a fixed amount of bitcoin are issued. Every four years that "block reward" is cut in half – until the year 2140 A.D., when the Zeno's Paradox ceases at 21 million bitcoins.

When bitcoin first came out it was 50 BTC every ten minutes, then 25, 12.5 and now 6.25 BTC.



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Halvings and Price



Bottoms and Rallies

PREVIOUS HALVINGS

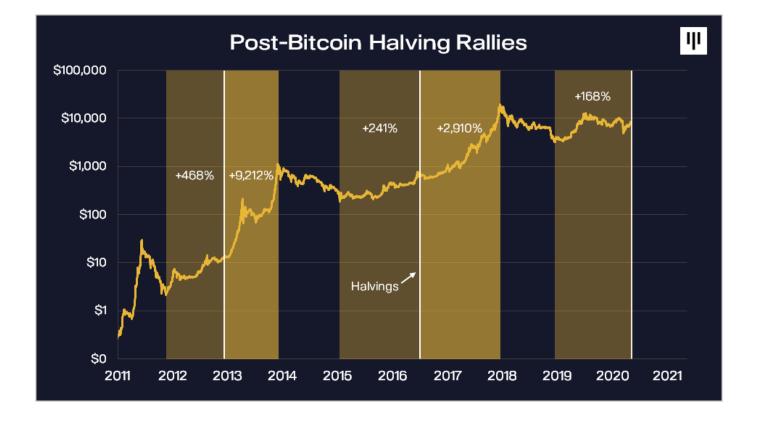
Yesterday afternoon was the official halving of the block reward to 6.25 BTC.

Although there are only a couple of data points – and with the caveat that the past doesn't predict the future – halvings have coincided with increases in price due to a perceived and/or real scarcity of supply.

Avg. bottom prior to halving: 459 days

This cycle's bottom: 514 days

Avg. rally after halving: 446 days



Stock-To-Flow

RATIO

One potential framework for analyzing the impact of halvings is to study the change in the stock-to-flow ratio across each halving.

Each subsequent halving's impact on price will likely taper off in importance as the ratio of reduction in supply from previous halvings to the next decreases.

	HALVINGS :: REDUCTION IN BITCOIN SUPPLY						
Halving	Reduction Of Supply Per Block	Total Reduction Over 446 Days	Outstanding Bitcoins	Reduction In Supply As Percentage Of Outstanding	Ratio Reduction In Supply From Previous To Next Halving		
11/28/12	25 BTC	1,605,600	10,501,590	15.3%			
7/9/16	12.5 BTC	802,800	15,750,652	5.1%	3.0x 2.3x		
5/12/20	6.25 BTC	401,400	18,375,712	2.2%			

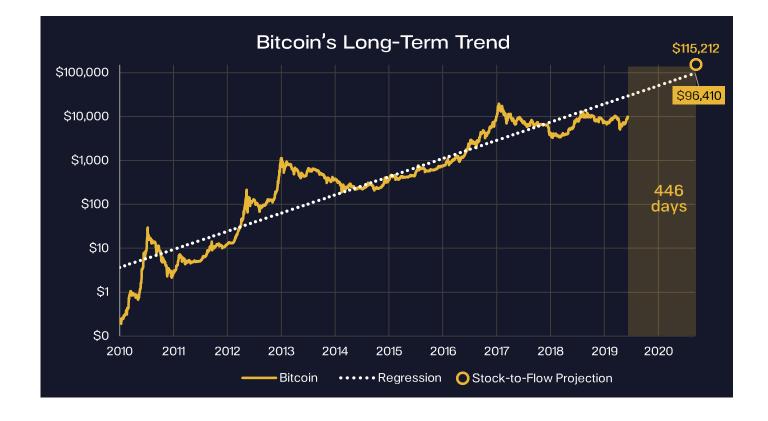
HALVINGS :: IMPACT ON PRICE						
	D #	Ratio Rally From Previous	5 5 .			
Halving	Rally	To Next Halving	Beginning Price	Ending Price		
11/28/12	9,212%	0.00	\$12	\$1,132		
7/9/16	2,910%	3.2x 2.5x	\$648	\$19,497		
5/12/20	1,182%*	2.58	\$8,988*	\$115,212		

BITCOIN'S NINE-YEAR

Long-Term Trend

Bitcoin's long-term logarithmic regression falls in a similar ballpark to the stock-to-flow ratio projection.

Around 446 days from now (the average duration of post-halving rallies), that regression implies a bitcoin price of \$96,000



Price

Bitcoin Yearly Lows

A DIFFERENT GROWTH PERSPECTIVE

As investors, we tend to get caught up in the all-time highs. Equally important are the yearly lows.

Looking back at the low-print of the market for each year, Bitcoin has shown consistent positive growth – there's only one year with a lower low than the previous years.

BITCOIN YEARLY LOW

Year

1 1188	· Cai
\$4	2012
\$13	2013
\$306	2014
\$190	2015
\$360	2016
\$779	2017
\$3,237	2018
\$3,399	2019
\$5,014	2020

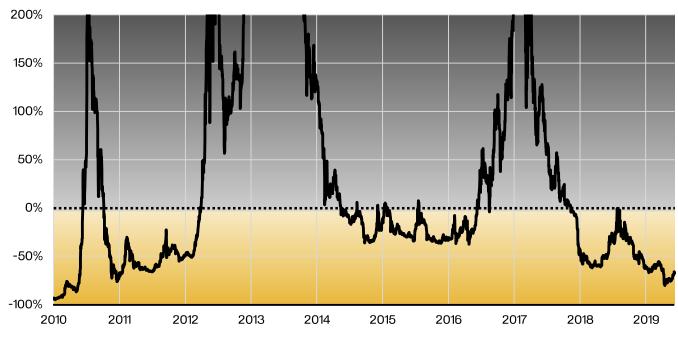
Deviation From Trend

BITCOIN PRICE

The price of Bitcoin is well below it's nine-year logarithmic trend.

Bitcoin's deviation from its trend is currently at the 8th percentile.

Bitcoin Deviation from Nine-Year Trend

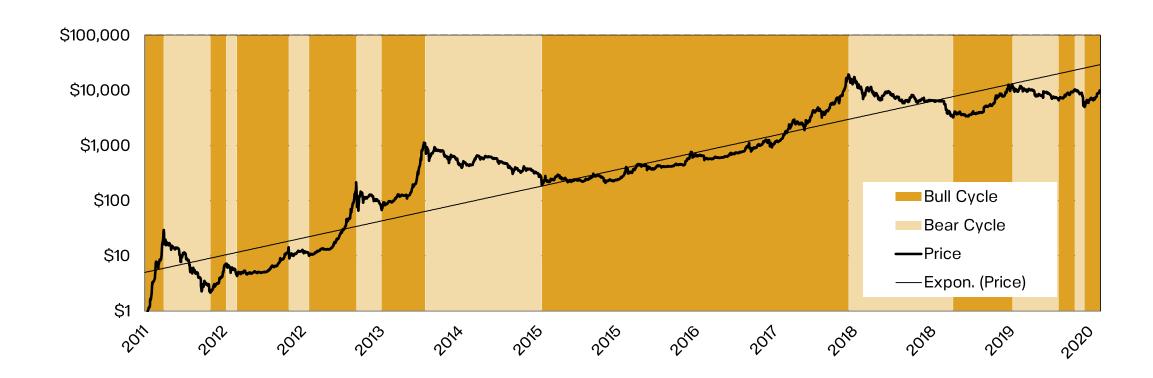


Note: Pricing data taken from Dec 1, 2010 - May 9, 2020

······Trend —— % Deviation

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Major Bitcoin Price Cycles





BULL MARKETS							
					Number	Price	Compound
Bull Markets	Low Date	Low Price	High Date	High Price	of Days	Increase	Rally/Day
Cycle 1	12/10/10	0.19	2/14/11	1.06	66	6x	2.9%
Cycle 2	4/5/11	0.67	6/9/11	29.58	65	44x	6.0%
Cycle 3	11/18/11	2.14	1/12/12	7.27	55	3x	2.7%
Cycle 4	2/19/12	4.33	8/17/12	14.25	180	3x	0.8%
Cycle 5	10/27/12	9.99	4/9/13	214.86	164	22x	1.9%
Cycle 6	7/6/13	67.21	12/4/13	1,111.56	151	17×	1.9%
Cycle 7	1/14/15	189.84	12/16/17	19,497.40	1067	103x	0.4%
Cycle 8	12/15/18	3,236.76	7/9/19	12,955.88	209	4x	0.8%
Cycle 9	12/17/19	6,640.52	2/11/20	10,394.61	59	2x	1.6%
Cycle 10	3/16/20	5,014.48	5/7/20	9,951.52	55	2x	2.0%
Mean	9/2/14	1,516.61	3/27/15	5,417.80	207	20x	2.1%
Median	3/2/13	38.60	8/6/13	663.21	109	5x	1.9%

Bitcoin Price Cycles

			BEAR MAR	RKETS				
								Retracement of
					Number	Price	Compound	Previous Bull
Bear Markets	High Date	High Price	Low Date	Low Price	of Days	Decline	Decline/Day	Market
Cycle 1	2/14/11	1.06	4/5/11	0.67	50	-37%	-0.7%	-45%
Cycle 2	6/9/11	29.58	11/18/11	2.14	162	-93%	-0.6%	-96%
Cycle 3	1/12/12	7.27	2/19/12	4.33	38	-40%	-1.1%	13%
Cycle 4	8/17/12	14.25	10/27/12	9.99	71	-30%	-0.4%	-61%
Cycle 5	4/9/13	214.86	7/6/13	67.21	88	-69%	-0.8%	-74%
Cycle 6	12/4/13	1,111.56	1/14/15	189.84	406	-83%	-0.2%	-103%
Cycle 7	12/16/17	19,497.40	12/15/18	3,236.76	364	-83%	-0.2%	-88%
Cycle 8	7/9/19	12,955.88	12/17/19	6,640.52	161	-49%	-0.3%	97%
Cycle 9	2/11/20	10,394.61	3/16/20	5,014.48	34	-52%	-1.5%	210%
Mean	8/31/14	4,914.05	1/31/15	1,685.10	153	-59%	-0.6%	-16%
Median	4/9/13	214.86	7/6/13	67.21	88	-52%	-0.6%	-61%

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Macro Impact on Crypto



Monetary Policy

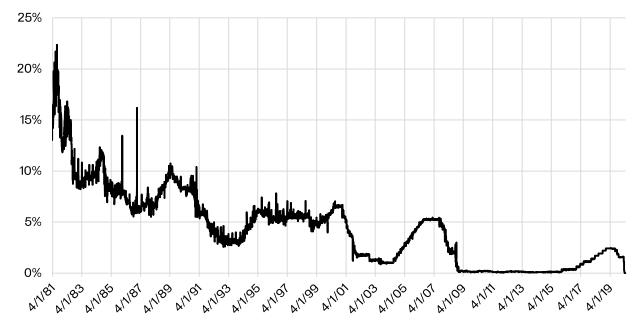
THE AGE OF ZERO INTEREST RATE POLICY

A month ago the world's central banks had cut lending rates 55 bps year-to-date. Now it's only 4 more basis points: 59bps. With roughly 60% of the world in GDP-weighted terms at or near its effective lower bound, there is little more room.

GLOBAL INTEREST RATES

Switzerland	-0.75%
U.S.	0.00%
Euro Area	0.00%
United Kingdom	0.10%
Australia	0.25%
Hong Kong	0.86%



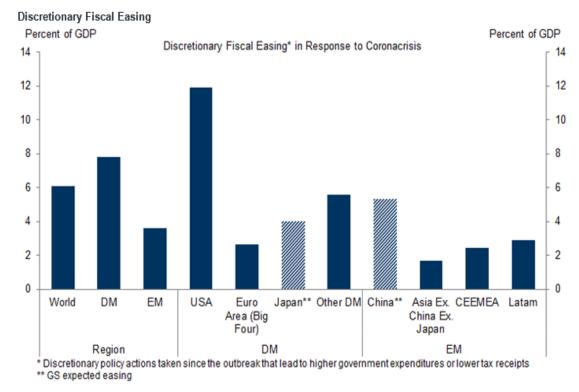


Fiscal Policy

COMBATTING AN INVISIBLE PHYSICAL BARRIER TO COMMERCE

JP Morgan's current forecast for the U.S. deficit is 19.5% of GDP.

This is larger than the widest deficits during the Great Depression and it is larger than the average annual deficits the United States incurred while fighting World War II.



Source: Goldman Sachs Global Investment Research



Bitcoin Up Year-To-Date

OVERTAKES GOLD

As Quantitative Easing approaches infinity, it simply has to have an impact on things whose quantity can't be eased.

QE1, 2, 3,...,n as $n \rightarrow \infty$

The policy is already achieving its goal. Bitcoin is up on the year with most other asset classes down.

Bitcoin even overtook gold.

2020 Year-To-Date Performance			
Bitcoin	+21%		
Gold (GC00)	+12%		
Corporate Bonds (HYG)	-9%		
Stocks (S&P 500)	-9%		
Real Estate (DWRTF)	-26%		
Commodities (CRB)	-33%		
Oil (CL1)	-60%		
	Performance based on May 10, 2020		

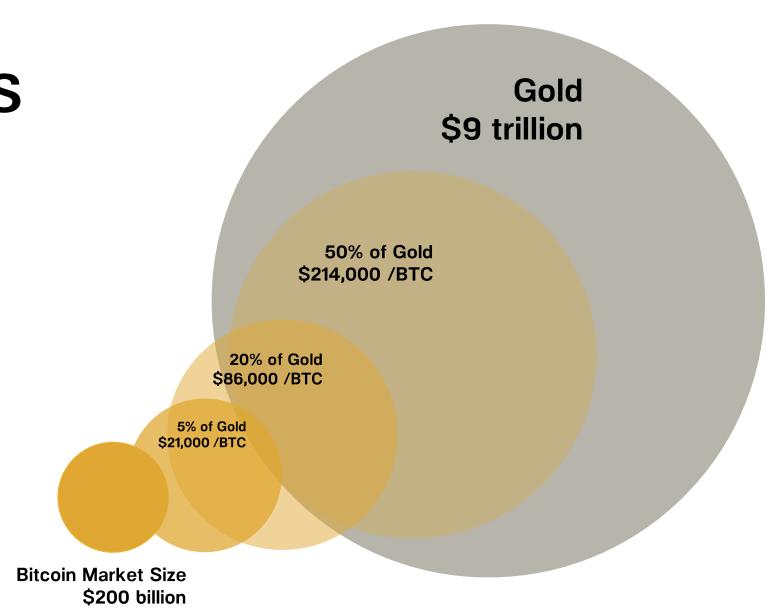
Gold of this Millennium

Paul Jones recently announced his purchase of bitcoin.

"...reminds him of gold in the 1970s."

Bitcoin offers a similar thesis to gold but with much more functionality and portability.

Should bitcoin capture just fractions of gold's market cap, the implied prices would be much higher from here.



Impact On Crypto

As governments increase the quantity of paper money, it takes more pieces of paper money to buy things that have fixed quantities, like stocks and real estate, above where they would settle absent an increase in the amount of money.

The corollary is they'll also inflate the price of other things, like gold, bitcoin, and other cryptocurrencies.

Bitcoin was born in a financial crisis.

It will come of age in this one.

Pantera Bitcoin Fund

OVERVIEW

Passive tracker of Bitcoin, offering daily liquidity and a competitively low fee structure.

FUND	PANTERA BITCOIN FUND
Objective	Track the returns of Bitcoin
Investment Approach	Cap-weighted, passive tracker
Assets Under Management	\$140 million
Launch	July 2013
Structure	Cayman Ltd
Fiscal Year	December 31
INVESTMENT TERMS ¹	
Investors	U.S. and Non-U.S. investors
Management Fee	0.75%
Performance Fee	0.00%
Realization Fee ²	1.00%
Minimum Investment	\$100,000
Subscriptions	Daily
Redemptions	Daily
IRA Eligibility	PENSCO Trust Company, Millennium Trust Company, and Equity Trust Company
SERVICE PROVIDERS	
Administrator	SEI Investments Company
Auditor	BDO
U.S. Counsel	Schulte Roth & Zabel
Offshore Counsel	Ogier Group
Regulatory Counsel	Cooley

¹ The terms summarized above are provided for information purposes only and do not constitute a complete overview of the terms of the Fund. An investment in the Fund may only be made pursuant to a Confidential Private Memorandum which should be carefully reviewed by any such offerees prior to investing.

² The Realization Fee is a fee equal to 1% of the redemption proceeds from the Fund, which is payable upon redemption and is intended to cover the effort and transaction costs associated with the redemption.



What's the difference?

IT'S JUST A "BITCOIN FUND"

Pantera Bitcoin Fund has out-performed Grayscale's GBTC product significantly over multiple time periods.

Pantera Bitcoin Fund tracks the price of bitcoin with NO premium to NAV.

BITCOIN FUND PERFORMANCE

	Pantera Bitcoin Fund	GBTC (Grayscale)	Pantera Out-Performance
1 Year	+32%	+9%	+23pp
2 Year	-18%	-43%	+25pp
3 Year	+509%	+439%	+70pp
4 Year	+1,595%	+1,052%	+543pp

Note: Performance based on 4/18/2020

PANTERA BITCOIN FUND

Advantages

Pantera Bitcoin Fund offers many advantages to other products in the space – including brokerage accounts like Coinbase or Bitstamp. We believe that Pantera Bitcoin Fund is the only Bitcoin investment vehicle offering daily liquidity, no premium to NAV, low fees, audited financials, and that is managed by a SEC registered investment advisor.

COMPETITOR ANALYSIS:	Pantera Bitcoin Fund	Grayscale Investment Trusts	Bitwise Funds
Lowest Expense Ratio	✓		
Total Fees and Expenses ¹	2.1%	2.5%	3.5%
No Lockup	✓		✓
No Early Redemption Fees	~	✓	
Daily Liquidity	~	✓	
Daily Subscriptions	✓	✓	
Insured	✓		
Both U.S. and Non-U.S. Investors	✓		

^{1.} Competitor fees based on information publically available on their websites, and/or information publically distributed. Pantera Bitcoin Fund fees are annualized, calculated since inception, and based on the average investor life in the fund.

PANTERA

pan terra (Latin), 'spanning the earth'pantera (Italian and Spanish), 'panther'pan era, 'spanning eras'

