

Monetary Policies and Altcoin comparison

----- Yiteng Zhang

≜UCL

- Monetary Policy
- Monetary Policy for Cryptocurrency
- Altcoin Examples
- Bitcoin Case Study Example
- Altcoin Case Study and Comparison



Traditional Monetary Policy And Cryptocurrency Monetary Policy



Monetary Policy

What is Monetary Policy?

Monetary Authority (eg Federal Reserve, BoE)

Supply of Money

- Types
 - 1. Expansionary
 - 2. Contractionary



- Impacts of Monetary Policy
 - Control Inflation
 - Interest Rates
 - Business Cycle
 - Spending
 - Employment



Monetary Policy For Cryptocurrency

Pre-defined

More like an observation or fact rather than a method

- Types
- 1. Growth Coins --- Inflationary
- 2. Fixed Coins --- Deflationary



- Impacts of Monetary Policy
 - Incentive for miners
 - Investment (or Speculation)
 - Hash Rate
 - Survival



Real Financial World

- Control Inflation
- Interest Rates
- Business Cycle
- Spending
- Employment

Cryptocurrency

- Incentive for miners
- Investment (or Speculation)
- Hash Rate
- Survival



It seems like...

 Traditional monetary policy Moving economy forward...

 Cryptocurrency monetary policy Fighting for the survival...



Altcoin Examples



Selection of Altcoins

Dogecoin

Litecoin

• Peercoin

Vertcoin

Namecoin

Primecoin

Reddcoin

Fedoracoin

Worldcoin

Unobtanium



Dogecoin (DOGE)



1 DOGE = \$0.00089

take itself too seriousty.

100,000,000,000 TOTAL CIRCULATION

CURRENCY EXCHANGES MINING POOLS

● DEFLATIONARY | Algorithm Type Scrypt

\$1,043,758 Transaction Volume in USD (past 24h)

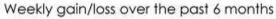
\$53,386,301

Coke \$0.50



Tesla Model S \$69,900 78,539,325 dogecoin

Top 10 most popular countries for the coin** (34,20%) TOPSY.COM SENTIMENT SCORE Depth of BitcoinTalk Announcement Thread





Time Stamp 12-23-2013 00:00 - 3-10-2013 00:00





^{*}Source: https://en.bitcoin.it/wki/Comparison_of_mining_pools

^{**}Source: Alexa.com's ranking for Bitcoin.org Announcement thread on BitcoinTalk bitcointalk.org/index.php?topic=361813.0



Litecoin (LTC)



Lead Dev/Devs: Charles Lee, Warren Togami, Anton Yemelyanov

litecoin.org LAUNCHED ON 07-Oct-11

A bitcoin fark, flecoin launched in October of 2011, it was authored by former Google employee Charles Lee. The coin was one of the first to use scrypt algorithms, which makes mining it more equitable. Litecoin also features faster confirmation times and a massive userbase. It's one of the big three with currency exchanges using It as a base currency for some trades.

1 LTC = \$16.54

84,000,000 TOTAL CIRCULATION

CURRENCY EXCHANGES

● DEFLATIONARY | Algorithm Type Scrypt

\$4,061,332

Transaction Volume in USD (past 24h)

\$439,539,771 Market Capitalization

Coke \$0.50 0.03 litecoin



Tesla Model S \$69,900 4,226 litecoin

Top 10 most popular countries for the coin**



(20:40%)



(9.60%)



(7.50%)





(4.70%)







(3.70%)







Canada China Germany (3.20%) (2.80%) (2.70%)

(Source: Alexa.com's ranking for Bitcoin.org)

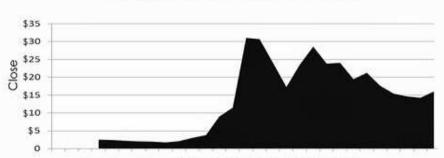




TOPSY.COM SENTIMENT SCORE

Depth of BitcoinTalk Announcement Thread

Weekly gain/loss over the past 6 months



Time Stamp 8-26-2013 00:00 - 3-10-2013 00:00

*Source: https://en.bitcoin.it/wiki/Comparison_of_mining_pools

""Source: Alexa.com's ranking for Bitcoin.org Announcement thread on BitcoinTalk bitcointaik.org/index.php?topic=361813.0







Peercoin (PPC)



Peercoin is the 4th-largest mineable cryptocurrency with a market cap of more than \$68 million. Unlike Bitcoin, Namecoin, and Litecoin. Peercoin does not have a hard limit on the number of possible coins, but is designed to eventually attain an annual inflation rate of 1 percent,

1 PPC = \$3.24

Unlimited TOTAL CIRCULATION







\$160,598 Transaction Volume in USD (past 24h)

\$68,875,492 Market Capitalization

Coke \$0.50 0.15 peercoin

Tesla Model S

Top 10 most popular countries for the coin** (29.60%) 19,40%) 9.20%) [7.20%] [4:00%] (4.10%) Dicorce: Alexa com's runking for Perecoinnell 58 TOPSY.COM SENTIMENT SCORE Depth of BitcoinTalk

Weekly gain/loss over the past 6 months



Time Stamp 8-26-2013 00:00 - 3-10-2013 00:00





^{*}Source: https://en.bitcoin.it/wiki/Comparison_of_mining_pools

^{**}Source: Alexa.com's ranking for Bitcoin.org

Announcement thread on BitcoinTalk bitcoinTalk.org/index.php?topic=361813.0



Vertcoin (VTC)



Lead Dev/Devs: Bushido

Vertcoin.org LAUNCHED ON 08-JAN-14

Verticain was launched in January of 2014 by a coder named "Bushido" who has worked as a developer at Accenture and Microsoff, The coin has built-in safeguards to "punish miners who use powerful machines and work together in "pools" to monopolize the mining market."

1 VTC = \$0.96

84,000,000 TOTAL CIRCULATION CURRENCY EXCHANGES

MINING POOLS

● DEFLATIONARY | Algorithm Type Scrypt

\$79,276

Transaction Volume in USD (past 24h)

\$2,496,702

Market Capitalization

Coke \$0.50 0.52 vertcoin



Tesla Model S 72.812.5 vertcoin

Top 10 most popular countries for the coin**



(25.60%)



(11.80%)



(6.00%)



(5.40%)



(5.10%)



(4.30%)



(3.70%)



Serbia (3.5%) (1.90%)

(Source: Alexa.com's ranking for Bifcoin.org)

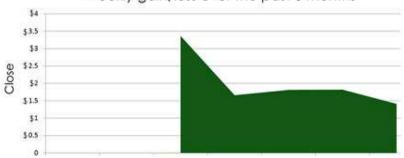




TOPSY.COM SENTIMENT SCORE

Depth of BitcoinTalk Announcement Thread

Weekly gain/loss over the past 6 months



Time Stamp 8-26-2013 00:00 - 3-10-2013 00:00





^{*}Source: https://en.bitcoin.it/wiki/Comparison_of_mining_pools

^{**}Source: Alexa.com's ranking for Bitcoin.org Announcement thread on BitcoinTalk bifcointaik.org/index.php?topic=361813.0



Announcement Thread

Namecoin (NMC)



Name coin helps push the imagination of programmers by extending the definition of cryptocurrency. In addition to serving as a currency, namecoin's client also enables a decentralized DNS lookup service that makes internet and domain name censorship difficult as it's autside of ICANN control. That means companies and individuals can build websites on .bit domains.

1 NMC = \$3.40

21,000,000 TOTAL CIRCULATION **CURRENCY EXCHANGES**

namecoin.org

ACTIVE MINING POOLS



\$91,167 Transaction Volume in USD (past 24h)

\$28,067,468 Market Capitalization

Coke \$0.50

Tesla Model S \$69,900

Top 10 most popular countries for the coin** [3.00%] [1.50%] (24.60%) (13.20%) (7.40%) (5.80%) (4:80%) (4.40%) (4.20%) (1.40%)(Source: Wexaucom's ranking for filtcoin.org) TOPSY.COM 336 SENTIMENT SCORE **FOLLOWERS** Depth of BitcoinTalk



[&]quot;Source: https://en.bitcoin.it/wiki/Comparlson_of_mining_pools





^{**}Source: Alexa.com's ranking for Bitcoin.org Announcement thread on BitcoinTalk bitcointaik.org/index.php?topic=361813.0



Primecoin (XPM)



Primecoin's proof-of-work system searches for prime numbers giving the coin a useful mathematical byproduct, indeed, the coin's miners have already set at least three world records for finding large prime numbers. Beyond that, primecoin is similar to bitcoin with faster block times and transaction confirmations.

1 XPM = \$1.35

Unlimited TOTAL CIRCULATION CURRENCY EXCHANGES

MINING POOLS

●INFLATIONARY SHA-512

\$39,097 Transaction Volume in USD (past 24h)

\$6,502,177 Market Capitalization

Coke \$0.50

Tesla Model S 51,777 primecoin

Top 10 most popular countries for the coin**



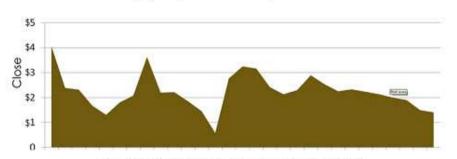
(Nource: Allexa.com's rorking for primecoinusig)

not enough data for other countries





Weekly gain/loss over the past 6 months



Time Stamp 8-26-2013 00:00 - 03-10-2013 00:00

Announcement thread on BitcoinTalk bifcointalk.org/index.php?fopic=361813.0

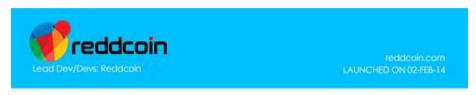




^{*}Source: https://en.bitcoin.it/wiki/Comparison_of_mining_pools **Source: Alexa.com's ranking for Bitcoin.org



Reddcoin (RDD)



Reddooin's primary goal is giving social networkers a fast and simple way to tip others, thereby taking cryptocurrencies to the masses. The coin will eventually integrate with Facebook, Twitter, Google+ and other networks to allow speedy fipping.

1 RDD = \$0.000038

109,000,000,000 TOTAL CIRCULATION CURRENCY EXCHANGES

ACTIVE MINING POOLS

● DEFLATIONARY | Algorithm Type SCrypt

\$18,547 Transaction Volume in USD (past 24h)

Market Capitalization

\$0.50 13157 reddcoin



Top 10 most popular countries for the coin**



(36.30%)



(22.80%)



(12.7%)





(Source: Alexa.com's ranking for Reddcoin.com)



bitcointaik.org/index.php?topic=361813.0

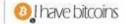


TOPSY.COM SENTIMENT SCORE

Depth of BitcoinTalk Announcement Thread

"Source: https://en.bitcoin.it/wiki/Comparison_of_mining_pools **Source: Alexa.com's ranking for Bitcoin.org Announcement thread on Bitcoinfalk







Fedoracoin (TIPS)



FedoraCoin gets its name from its intended purpose: giving others a "tip of the hat" in the form of a financial tip via social networking sites. The deviteom has developed an automatic tipping bot that runs on Reddit with other tipping tools under de-

500,000,000,000 TOTAL CIRCULATION CURRENCY EXCHANGES

MINING POOLS



\$14,296 Transaction Volume in USD (past 24h)

Market Capitalization

\$0.50 185185 TIPS



Top 10 most popular countries for the coin**

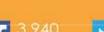




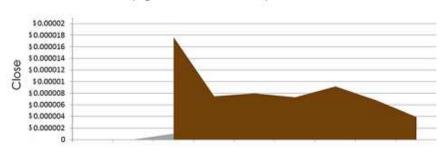








Weekly gain/loss over the past 6 months



Time Stamp 8-26-2013 00:00 - 03-10-2013 00:00





^{*}Source: https://en.bitcoin.it/wiki/Comparison_of_mining_pools

^{**}Source: Alexa.com's ranking for Bitcoin.org Announcement thread on BitcoinTalk bitcointalk.org/index.php?topic=361813.0



Worldcoin (WDC)



worldcoinaliance.net LAUNCHED ON 14-MAY-13

One of the faster cryptocurrencies on the market, worldcoin can confirm transactions in one minute or less. The coin's creators hope to sporsor world-changing projects. The worldcoin community started on that goal by funding the \$10,000 installation of a clean water well in Kenya; a project that's still underway.

1 WDC = \$0.069

265,420,800 TOTAL CIRCULATION CURRENCY EXCHANGES

ACTIVE

● DEFLATIONARY | Scrypt

\$35,159

Transaction Volume in USD (past 24h)

\$3,353,182

\$0.50 7.25 worldcoin



Tesla Model S \$69,900 1,013,043.00 worldcoin Top 10 most popular countries for the coin**



(Source: Alexa.com's ranking for http://www.worldcoinalliance.net/)

Other countries unavailable due to lack of data

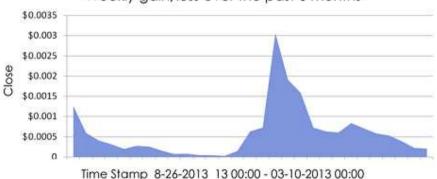




SENTIMENT SCORE

Depth of BitcoinTalk Announcement Thread

Weekly gain/loss over the past 6 months



*Source: https://en.bitcoin.it/wiki/Comparison_of_mining_pools

""Source: Alexa.com's ranking for Bitcoin.org Announcement thread on BitcoinTalk bitcointalk.org/index.php?topic=361813.0







Unobtanium (UNO)

Market Price: UNO/BTC 0.00361736

(Wednesday from coinwarz.com

Total: Circulation

Active Currency Exchange: 4

Active Mining Pool: 7

Monetary Policy: Deflationary

Algorithm Type: SHA-256



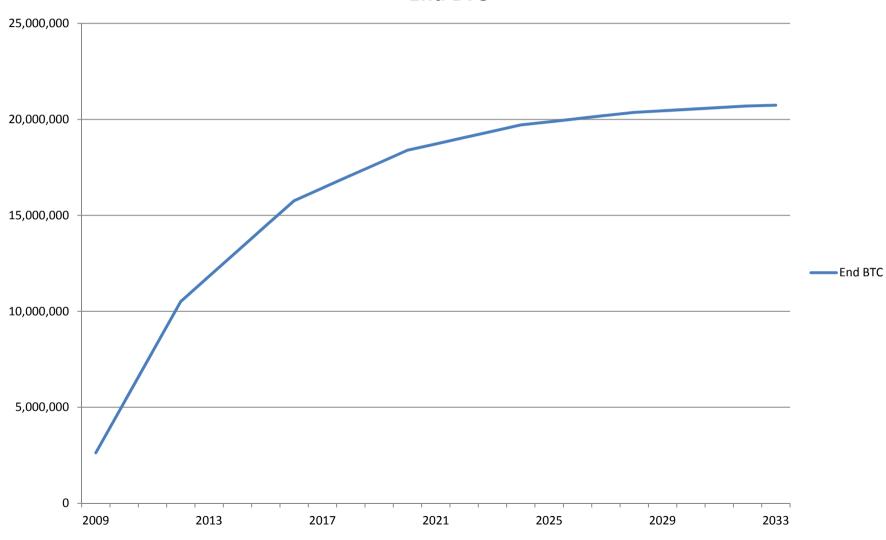
Bitcoin Case Study Example



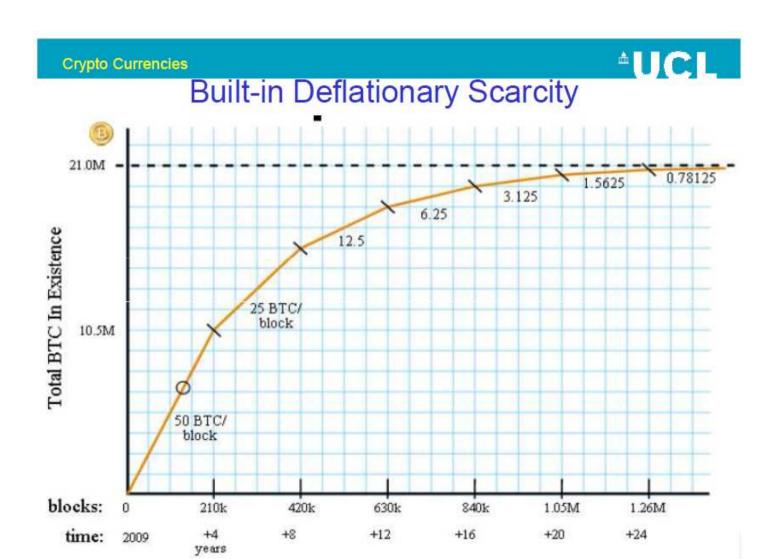
Block	Reward Era	BTC/block	Year	Start BTC	BTC Added	End BTC	BTC Increase	End BTC % of Limit
0	1	50.000	2009	0	2,628,000	2,628,000iı	nfinite	12.51%
52,560	1	50.000	2010	2,628,000	2,628,000	5,256,000	100.00%	25.03%
105,120	1	50.000	2011	5,256,000	2,628,000	7,884,000	50.00%	37.54%
157,680	1	50.000	2012	7,884,000	2,628,000	10,512,000	33.33%	50.06%
210,240	2	25.000	2013	10,512,000	1,314,000	11,826,000	12.50%	56.31%
262,800	2	25.000	2014	11,826,000	1,314,000	13,140,000	11.11%	62.57%
315,360	2	25.000	2015	13,140,000	1,314,000	14,454,000	10.00%	68.83%
367,920	2	25.000	2016	14,454,000	1,314,000	15,768,000	9.09%	75.09%
420,480	3	12.500	2017	15,768,000	657,000	16,425,000	4.17%	78.21%
473,040	3	12.500	2018	16,425,000	657,000	17,082,000	4.00%	81.34%
525,600	3	12.500	2019	17,082,000	657,000	17,739,000	3.85%	84.47%
578,160	3	12.500	2020	17,739,000	657,000	18,396,000	3.70%	87.60%
630,720	4	6.250	2021	18,396,000	328,500	18,724,500	1.79%	89.16%
683,280	4	6.250	2022	18,724,500	328,500	19,053,000	1.75%	90.73%
735,840	4	6.250	2023	19,053,000	328,500	19,381,500	1.72%	92.29%
788,400	4	6.250	2024	19,381,500	328,500	19,710,000	1.69%	93.86%
840,960	5	3.125	2025	19,710,000	164,250	19,874,250	0.83%	94.64%
893,520	5	3.125	2026	19,874,250	164,250	20,038,500	0.83%	95.42%
946,080	5	3.125	2027	20,038,500	164,250	20,202,750	0.82%	96.20%
998,640	5	3.125	2028	20,202,750	164,250	20,367,000	0.81%	96.99%
1,051,200	6	1.563	2029	20,367,000	82,125	20,449,125	0.40%	97.38%
1,103,760	6	1.563	2030	20,449,125	82,125	20,531,250	0.40%	97.77%
1,156,320	6	1.563	2031	20,531,250	82,125	20,613,375	0.40%	98.16%
1,208,880	6	1.563	2032	20,613,375	82,125	20,695,500	0.40%	98.55%









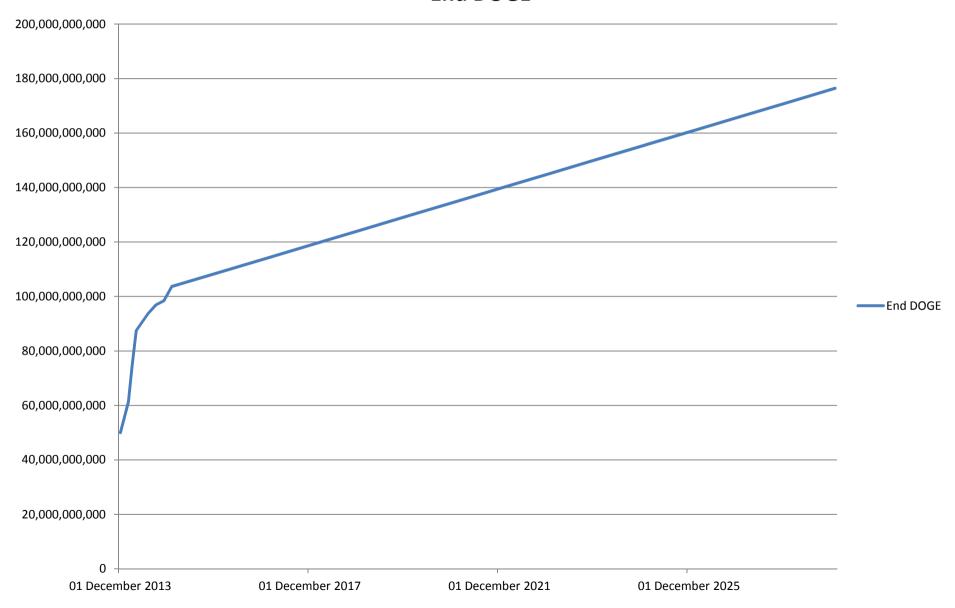




Altcoin Case Study and Comparison



End DOGE

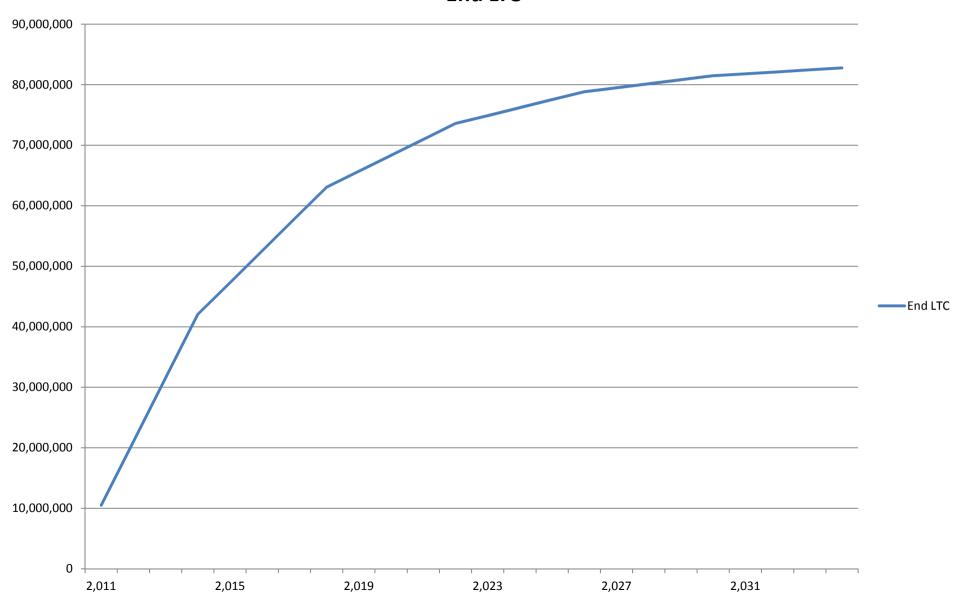




Dogecoin								
Block	Reward Era	DOGE/block	Year	Start DOGE	DOGE Added	End DOGE	DOGE Increase	End DOGE % of Limit
0	<u>:</u>	1 ⁰⁻¹⁰⁰⁰⁰⁰⁰ (random)	08 December 2013	0	50,000,000,000	50,000,000,000	Infinite	N/A
100,001	2	20-500000 (random)	14 February 2014	50,000,000,000	11,250,000,000	61,250,000,000	22.50%	N/A
145,000	(3 250,000	17 March 2014	61,250,000,000	13,750,000,000	75,000,000,000	22.45%	N/A
200,001	4	4 125,000	28 April 2014	75,000,000,000	12,500,000,000	87,500,000,000	16.67%	N/A
300,001	į	62,500	02 July 2014	87,500,000,000	6,250,000,000	93,750,000,000	7.14%	N/A
400,001	(6 31,250	09 September 2014	93,750,000,000	3,125,000,000	96,875,000,000	3.33%	N/A
500,001	7	7 15,625	18 November 2014	96,875,000,000	1,562,000,000	98,437,000,000	1.61%	N/A
600,001	8	8 10,000	26 January 2015	98,437,000,000	5,200,000,000	103,637,000,000	5.28%	N/A
N/A	8	8N/A	26 January 2016	103,637,000,000	5,200,000,000	108,837,000,000	5.02%	N/A
N/A	8	8N/A	26 January 2017	108,837,000,000	5,200,000,000	114,037,000,000	4.78%	N/A
N/A	8	8N/A	26 January 2018	114,037,000,000	5,200,000,000	119,237,000,000	4.56%	N/A
N/A	8	8N/A	26 January 2019	119,237,000,000	5,200,000,000	124,437,000,000	4.36%	N/A
N/A	8	8N/A	26 January 2020	124,437,000,000	5,200,000,000	129,637,000,000	4.18%	N/A
N/A	8	8N/A	26 January 2021	129,637,000,000	5,200,000,000	134,837,000,000	4.01%	N/A
N/A	8	8N/A	26 January 2022	134,837,000,000	5,200,000,000	140,037,000,000	3.86%	N/A
N/A	8	8N/A	26 January 2023	140,037,000,000	5,200,000,000	145,237,000,000	3.71%	N/A



End LTC

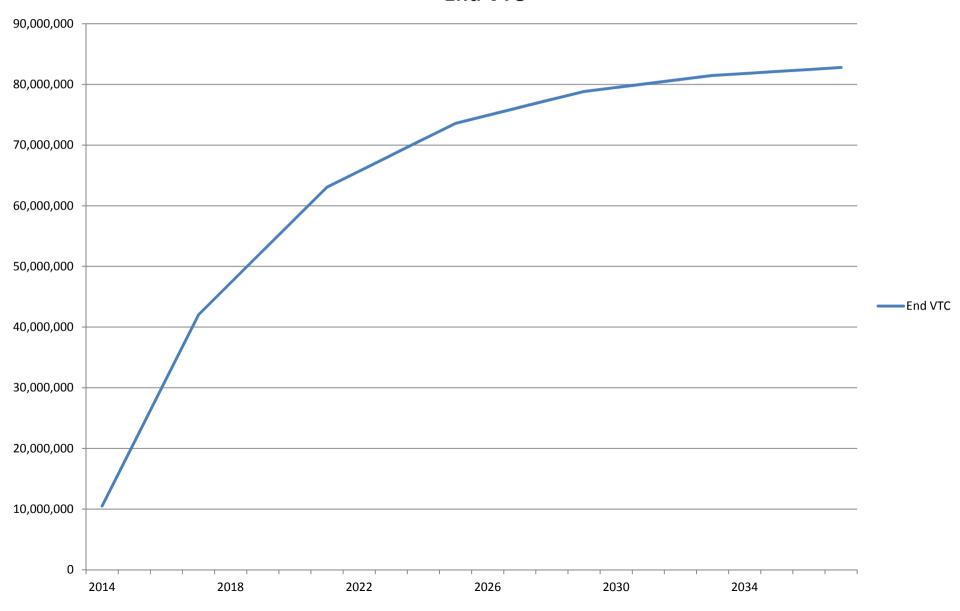




itecoin								
Block	Reward Era	LTC/block	Year	Start LTC	LTC Added	End LTC	LTC Increase	End LTC % of Limit
0	1	50.000	2,011	0	10,512,000	10,512,000i	infinite	12.51%
210,240	1	50.000	2,012	10,512,000	10,512,000	21,024,000	100.00%	25.03%
420,480	1	50.000	2,013	21,024,000	10,512,000	31,536,000	50.00%	37.54%
630,720	1	50.000	2,014	31,536,000	10,512,000	42,048,000	33.33%	50.06%
840,960	2	25.000	2,015	42,048,000	5,256,000	47,304,000	12.50%	56.31%
1,051,200	2	25.000	2,016	47,304,000	5,256,000	52,560,000	11.11%	62.57%
1,261,440	2	25.000	2,017	52,560,000	5,256,000	57,816,000	10.00%	68.83%
1,471,680	2	25.000	2,018	57,816,000	5,256,000	63,072,000	9.09%	5 75.09%
1,681,920	3	12.500	2,019	63,072,000	2,628,000	65,700,000	4.17%	78.21%
1,892,160	3	12.500	2,020	65,700,000	2,628,000	68,328,000	4.00%	81.34%
2,102,400	3	12.500	2,021	68,328,000	2,628,000	70,956,000	3.85%	84.47%
2,312,640	3	12.500	2,022	70,956,000	2,628,000	73,584,000	3.70%	87.60%
2,522,880	4	6.250	2,023	73,584,000	1,314,000	74,898,000	1.79%	89.16%
2,733,120	4	6.250	2,024	74,898,000	1,314,000	76,212,000	1.75%	90.73%
2,943,360	4	6.250	2,025	76,212,000	1,314,000	77,526,000	1.72%	92.29%
3,153,600	4	6.250	2,026	77,526,000	1,314,000	78,840,000	1.69%	93.86%
3,363,840	5	3.125	2,027	78,840,000	657,000	79,497,000	0.83%	94.64%
3,574,080	5	3.125	2,028	79,497,000	657,000	80,154,000	0.83%	95.42%
3,784,320	5	3.125	2,029	80,154,000	657,000	80,811,000	0.82%	96.20%
3,994,560	5	3.125	2,030	80,811,000	657,000	81,468,000	0.81%	96.99%
4,204,800	6	1.563	2,031	81,468,000	328,500	81,796,500	0.40%	97.38%
4,415,040	6	1.563	2,032	81,796,500	328,500	82,125,000	0.40%	97.77%
4,625,280	6	1.563	2,033	82,125,000	328,500	82,453,500	0.40%	98.16%
4,835,520	6	1.563	2,034	82,453,500	328,500	82,782,000	0.40%	98.55%

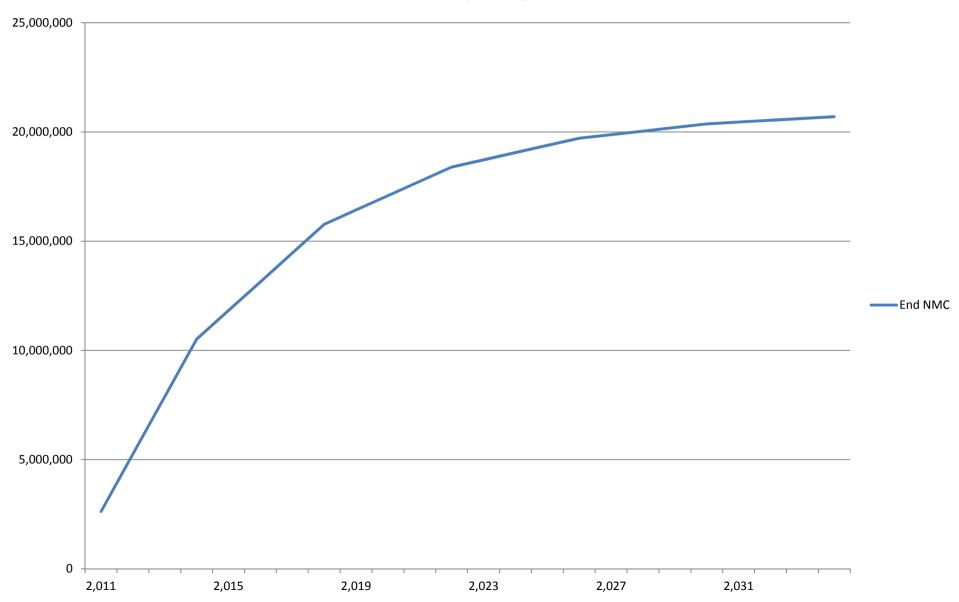


End VTC



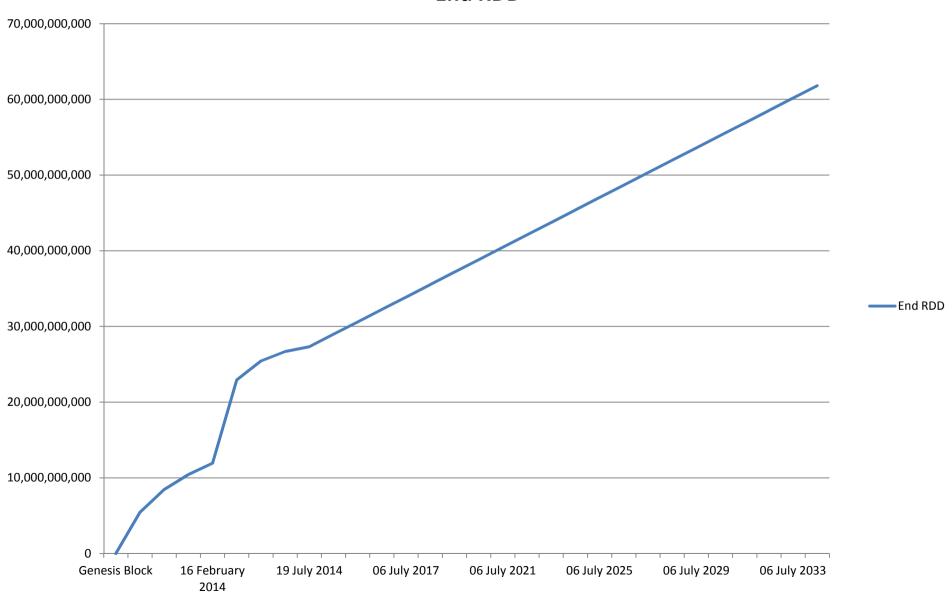


End NMC





End RDD

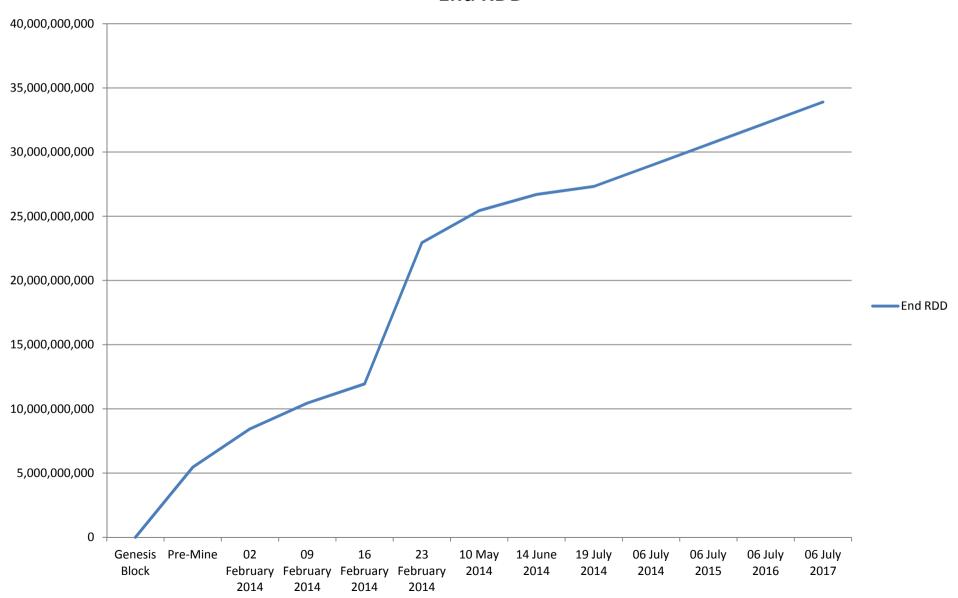




Reddcoin								
Block	Reward Era	RDD/block	Year	Start RDD	RDD Added	End RDD	RDD Increase	End RDD % of Limit
0	1	10,000) Genesis Block	0	10,000	10,000	Infinite	0.00%
11	2	545,000,000) Pre-Mine	10,000	5,450,000,000	5,450,010,000	54500000.00%	5.00%
10,000	3			5,450,010,000	2,996,400,000	8,446,410,000	54.98%	7.75%
20,000	4	200,000	09 February 2014	8,446,410,000	1,999,800,000	10,446,210,000	23.68%	9.58%
30,000	5	150,000) 16 February 2014	10,446,210,000	1,499,850,000	11,946,060,000	14.36%	10.96%
140,000	6	100,000	23 February 2014	11,946,060,000	10,999,900,000	22,945,960,000	92.08%	21.05%
190,000	7	50,000	10 May 2014	22,945,960,000	2,499,950,000	25,445,910,000	10.89%	23.34%
240,000	8	25,000	14 June 2014	25,445,910,000	1,249,975,000	26,695,885,000	4.91%	24.49%
290,000	9	12,500	19 July 2014	26,695,885,000	624,987,500	27,320,872,500	2.34%	25.07%
815,600	10	3,125	06 July 2014	27,320,872,500	1,642,500,000	28,963,372,500	6.01%	26.57%
1,341,200	10	3,125	06 July 2015	28,963,372,500	1,642,500,000	30,605,872,500	5.67%	28.08%
1,866,800	10	3,125	06 July 2016	30,605,872,500	1,642,500,000	32,248,372,500	5.37%	29.59%
2,392,400	10	3,125	06 July 2017	32,248,372,500	1,642,500,000	33,890,872,500	5.09%	31.09%



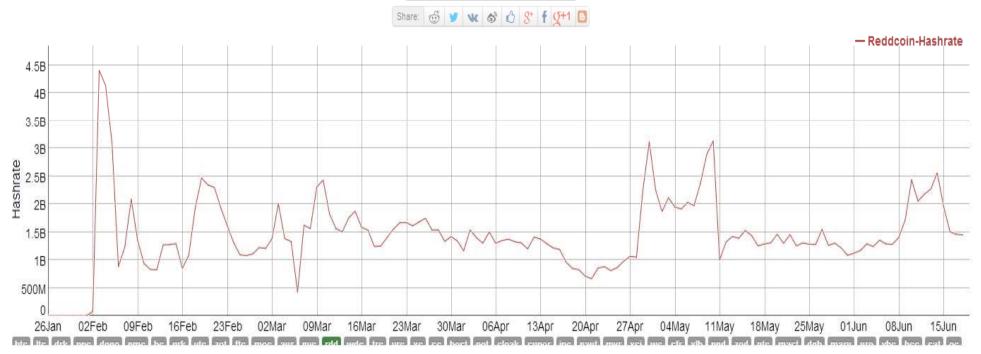
End RDD





Reddcoin Hashrate comparison chart.

Average hashrate (hash/s) per day





RDD Increase

