What is Bitcoin and Why Does it Matter to You?

Paul David Marotta

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- History
- Statistics
- How Bitcoin operates as a transaction system
- Opportunities and pitfalls in conducting Bitcoin Transactions
- Potential legal and financial challenges ahead for the Bitcoin Standard

History

- Open source code created by Satoshi Nakamoto, likely a pseudonym.
- Sometimes called a cryptocurrency because it uses cryptography to control authenticity.
- Paper published in 2008.
- Software released in 2009.
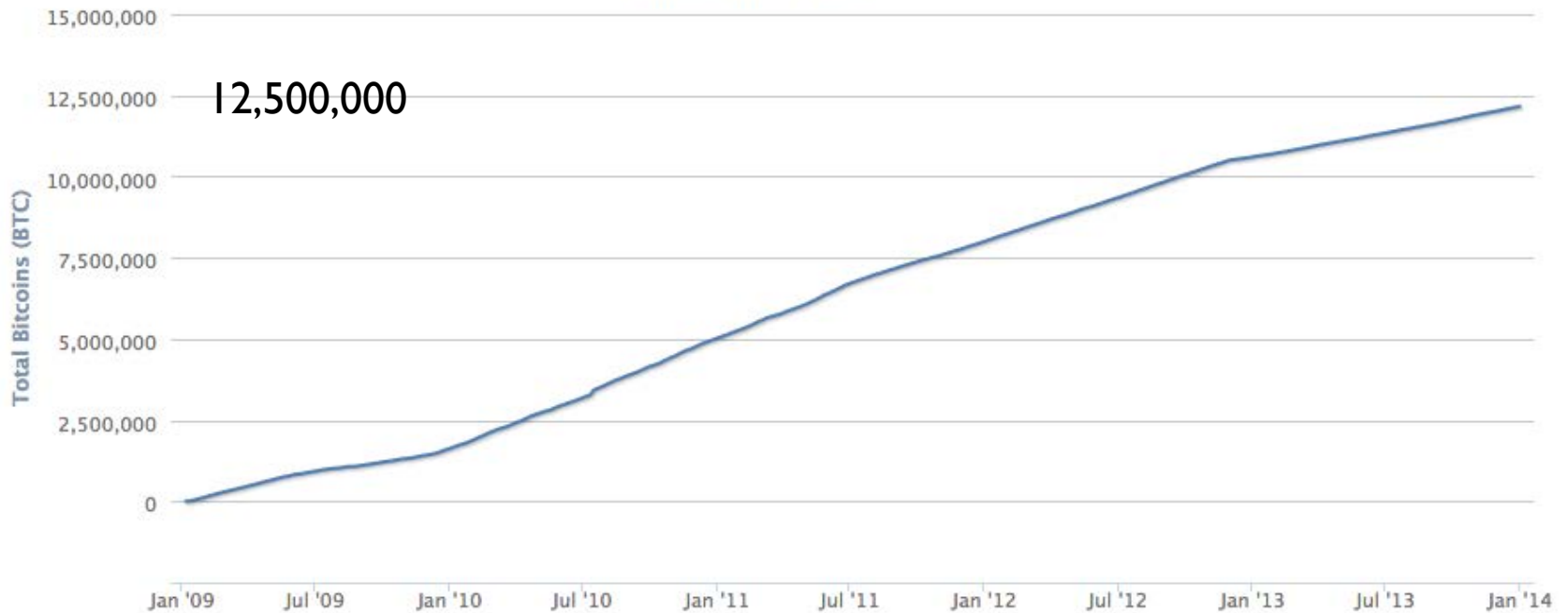- Bitcoins trading since 2009.

Statistics

- 12.3 million Bitcoins in circulation.
- Maximum total number will be 21 million.
- Trading right now around $900 per bitcoin.
- Total market cap is about $11 billion.
- New Bitcoins are added only for "mining".
- About 3,600 Bitcoins are added each day (halved in 11-2012); (about 100,000 each month). This will decrease exponentially as the limit is approached. Will halve again in 2016 to 1800 per day.
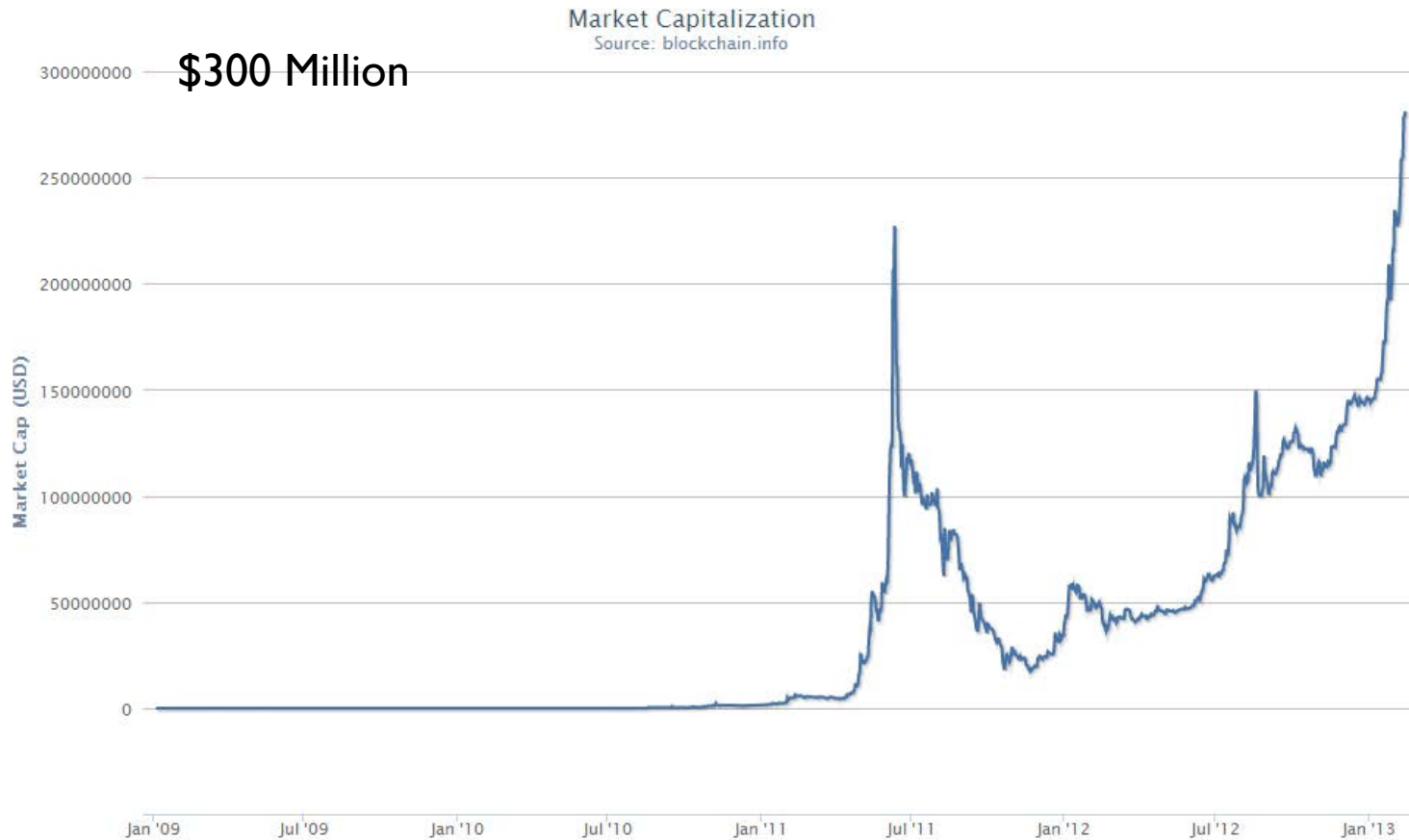
Mt. Gox* exchange prices

*Now Bankrupt

Bitcoins in circulation

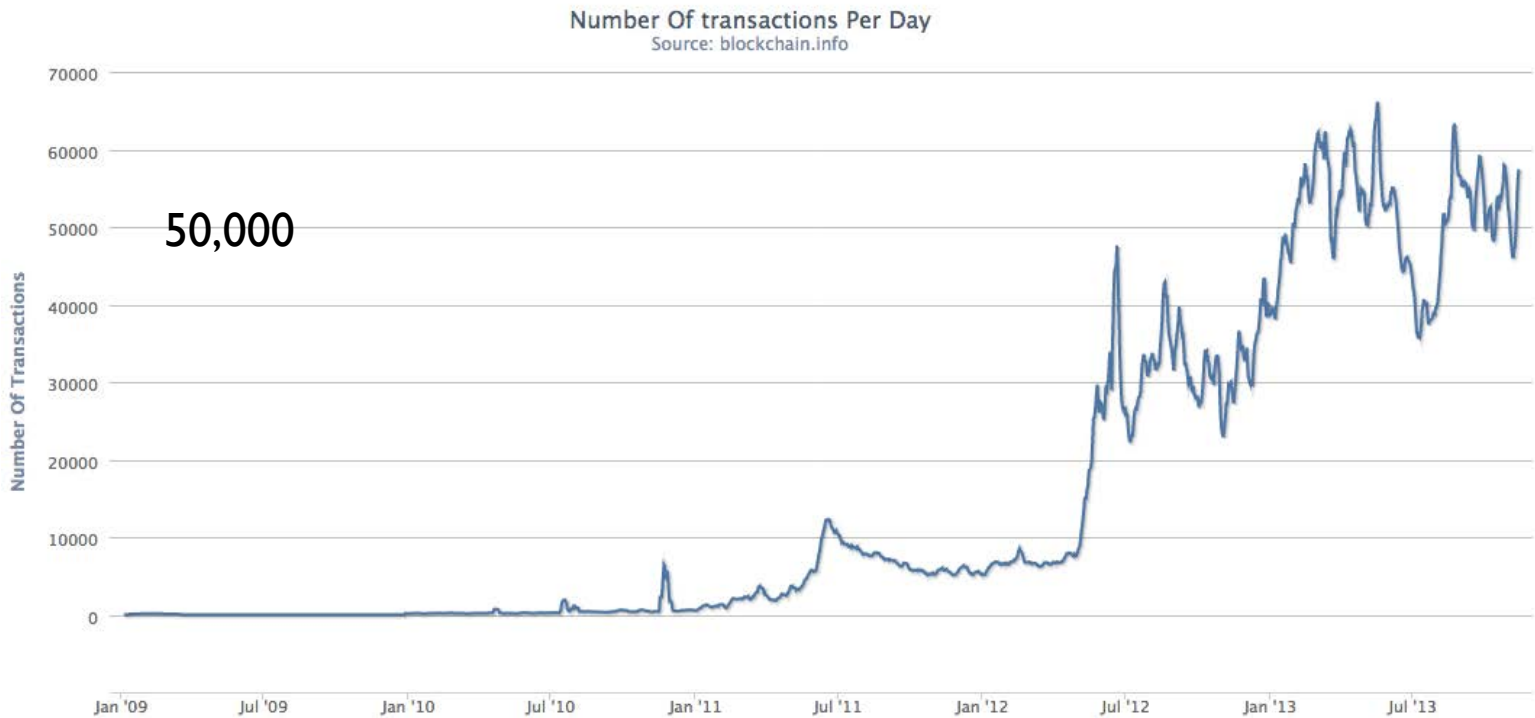**Total Bitcoins In Circulation**
Source: blockchain.info

12,500,000

January, 2014

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Bitcoin Market Cap

Market Capitalization
Source: blockchain.info

$300 Million

January. 2013

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Number of Bitcoin Transactions Per Day.

Number Of transactions Per Day
Source: blockchain.info

50,000

July, 2013

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How Bitcoin operates as a transaction system.

- You have a store of value in your Bitcoin wallet.
- When you "pay" using Bitcoin info is added to the blockchain deducting your Bitcoins and adding to your payee.
- Can be almost perfectly frictionless.
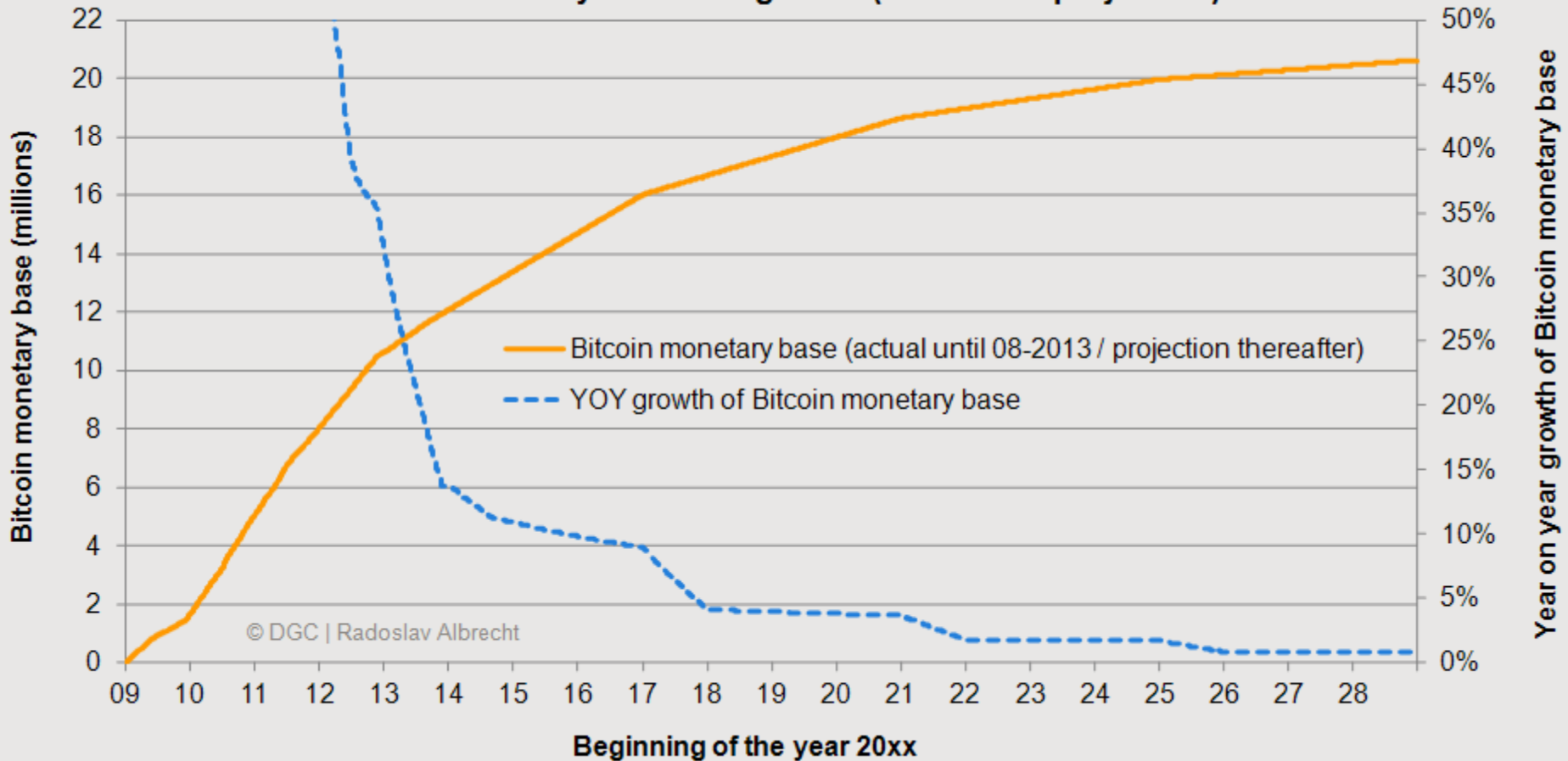- Could use efficiently for a $0.01 purchase.

How do you use Bitcoins?

- Buy them from an exchange like Mt. Gox or CoinBase or Bitstampt.

- No chance of identity theft.

- No transaction cost.

- 1% fee to buy Bitcoins.

- Feds track who buys and sells, but no one really knows what they are used for.

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Mining

- "Mining" is solving math problems hard enough that they use tremendous computing power.
- Rewarded for mining but reward will diminish exponentially toward 21 million Bitcoins.
- Reward was initially 50 per block (one block every ten minutes) but is halved every 210,000 blocks. 6 blocks an hour implies halving every four years. Now 25 per block.
- Once we approach 21 million Bitcoins, users can offer to pay a transaction fee which will go the miners.

Number of Bitcoins v. Growth in Bitcoins

Bitcoin monetary base and growth (actual and projection)

Bitcoin monetary base (actual until 08-2013 / projection thereafter)

YOY growth of Bitcoin monetary base

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Bitcoin monetary base (millions)

Year on year growth of Bitcoin monetary base

Beginning of the year 20xx

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The Byzantine Generals Problem

- Camped in several spots.
- Need a common battle plan.
- Might be infiltrated with spies.
- Marc Andreessen: "The consequences of this breakthrough are hard to overstate."

Opportunities and pitfalls for businesses interested in conducting Bitcoin transactions.

- Four of five merchants view Bitcoin as disruptive.

- Western Union (passed already in volume by Bitcoin) and Paypal need to catch on.

- Consumers don't really understand it yet.

- Need to get past the "exchange window" view.

Opportunities and pitfalls for businesses interested in conducting Bitcoin transactions. (cont.)

- Overstock sold $130,000 in stuff to 840 Bitcoin customers, most new.
- Price very volatile.
- Friend says, "It's the biggest thing since the introduction of the browser."

Future of Money in Technology Summit Findings

- Emphasis on volatility misplaced. Volatility is needed to stress test Bitcoin.

- Decentralized network is enormously disruptive.

- First mover advantage is tremendous.

- Bitcoin network is underappreciated and could be used to transfer title to real property and securities.

The Winklevoss Bitcoin Trust

- Twin brothers who sued Facebook
- Formed to hold Bitcoins
- Will not actively trade.
- "a cost-effective and convenient means of gaining investment exposure to Bitcoins"
- Estimated to own as much as $1 billon in Bitcoins right now.
- Why not just buy some?

Funded Startups

- Coinbase - $25M from Andreessen
- BitAngles has invested $7M in 12 startups
- Draper put $500K in CoinLab to help game companies get users to allow use of their computing power*
- Korean exchange Korbit raised $400K from Draper
- Most investments still in exchanges. (Selling tools to miners?)

*And was sole winning bidder in the auction of almost 30,000 bitcoin, bidding $650 each.

Potential legal and financial challenges ahead for the Bitcoin standard.

- Will be / is being regulated.
- "Fork" in the blockchain in March 2013 due to two nodes running different versions of Bitcoin.
- Litigation with transaction partners may be very tough.
- Might need new ways of resolving disputes.

Silk Road

- Silk road founder Ross Ulbricht arrested two times for drugs, money, hacking, murder for hire.

- Charlie Shrem, CEO of processor BitInstant arrested for money laundering

- BitInstant got $1.5 million from Winklevoss.

Government Interference

- US FinCEN [financial crimes enforcement network] has ruled that a Bitcoin money exchanger must register as a money services business (like a bank).

- Several states have followed suit.

- Currency or capital asset? No ruling yet. Winklevoss says capital asset.

- Singapore treats Bitcoin like a product.

Government Interference (cont.)

- Germany calls it a currency and will tax it.
- Slovenia says that it is money.

Other digital currencies

- OpenCoin raised $2 million in April, 2013 to develop a "Ripple" currency.
- "Litecoin" based on the bitcoin protocol offers mining with consumer grade hardware.
- Namecoin
- Dogecoin
- PPcoin
- Mastercoin
- RonPaulCoin ☺

Summary

- History
- Statistics
- How Bitcoin operates as a transaction system.
- Opportunities and pitfalls in conducting Bitcoin Transactions.
- Potential legal and financial challenges ahead for the Bitcoin Standard.

Predictions

- You can live without Bitcoin the rest of your life quite comfortably.
- There are great opportunities in Bitcoin.
- Bitcoin will not be regulated out of existence.
- Bitcoin might scandalize itself out of existence.

More Info

- Check out the video at bitcoin.com
- Chicago fed letter authored by senior economist Francoise Velde at http://www.chicagofed.org/digital_assets/publications/chicago_fed_letter/2013/cfldecember2013_317.pdf [Google "Chicago fed letter about bitcoin"]. December, 2013
- **Secret Money**, a Forbes ebook about living on Bitcoin.
- *Why Bitcoin Matters Articles* by Marc Andreessen. January 21, 2014. $50M invested in Bitcoin startups.

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