



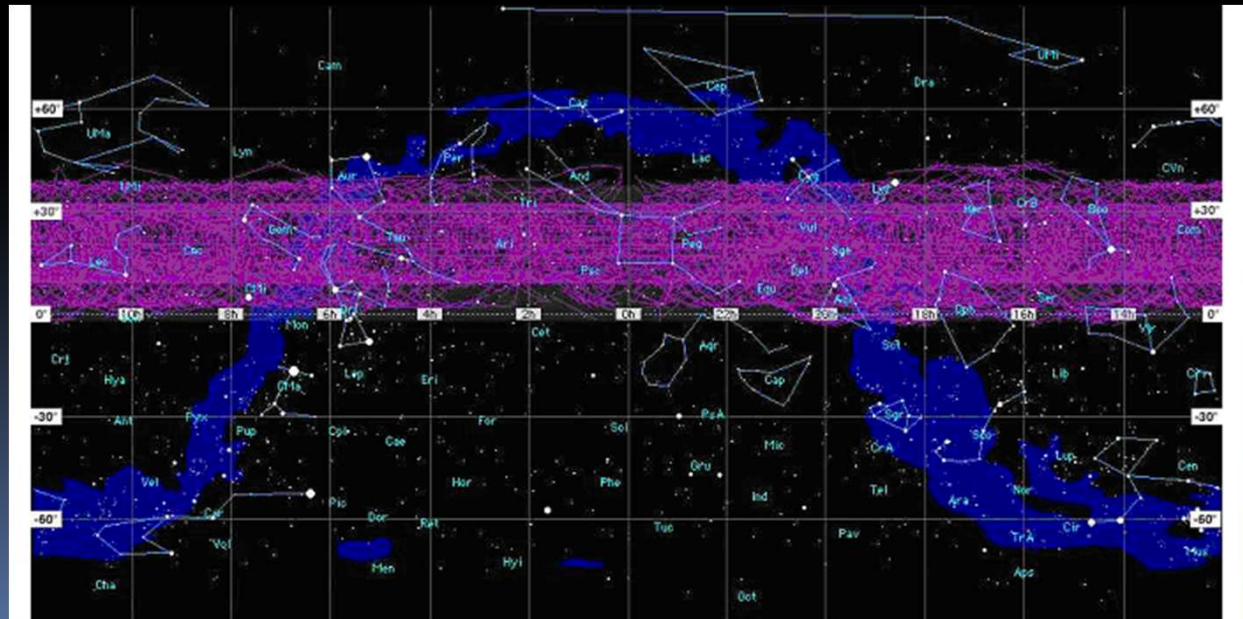
Bitcoin: The Appeal of a Nonpolitical Monetary Unit

Jon Matonis
Founding Director
Bitcoin Foundation

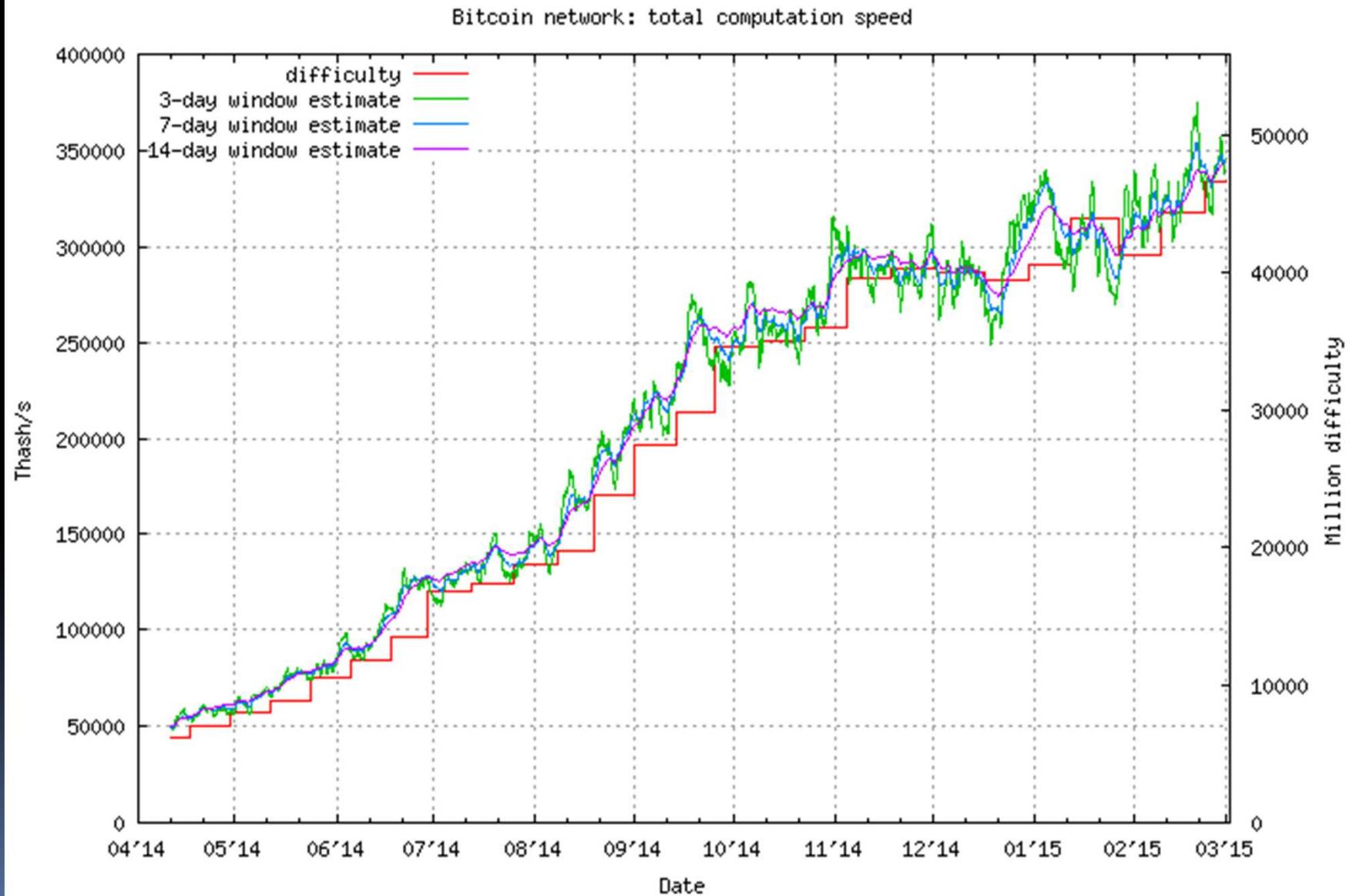
Giant Stone Money Of Yap



Search For Extraterrestrial Intelligence (SETI)

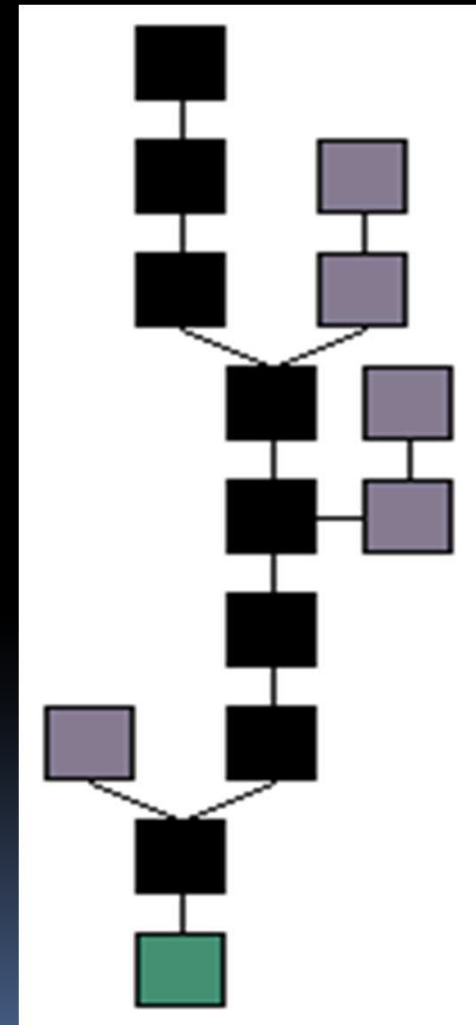


Bitcoin Network Computational Power



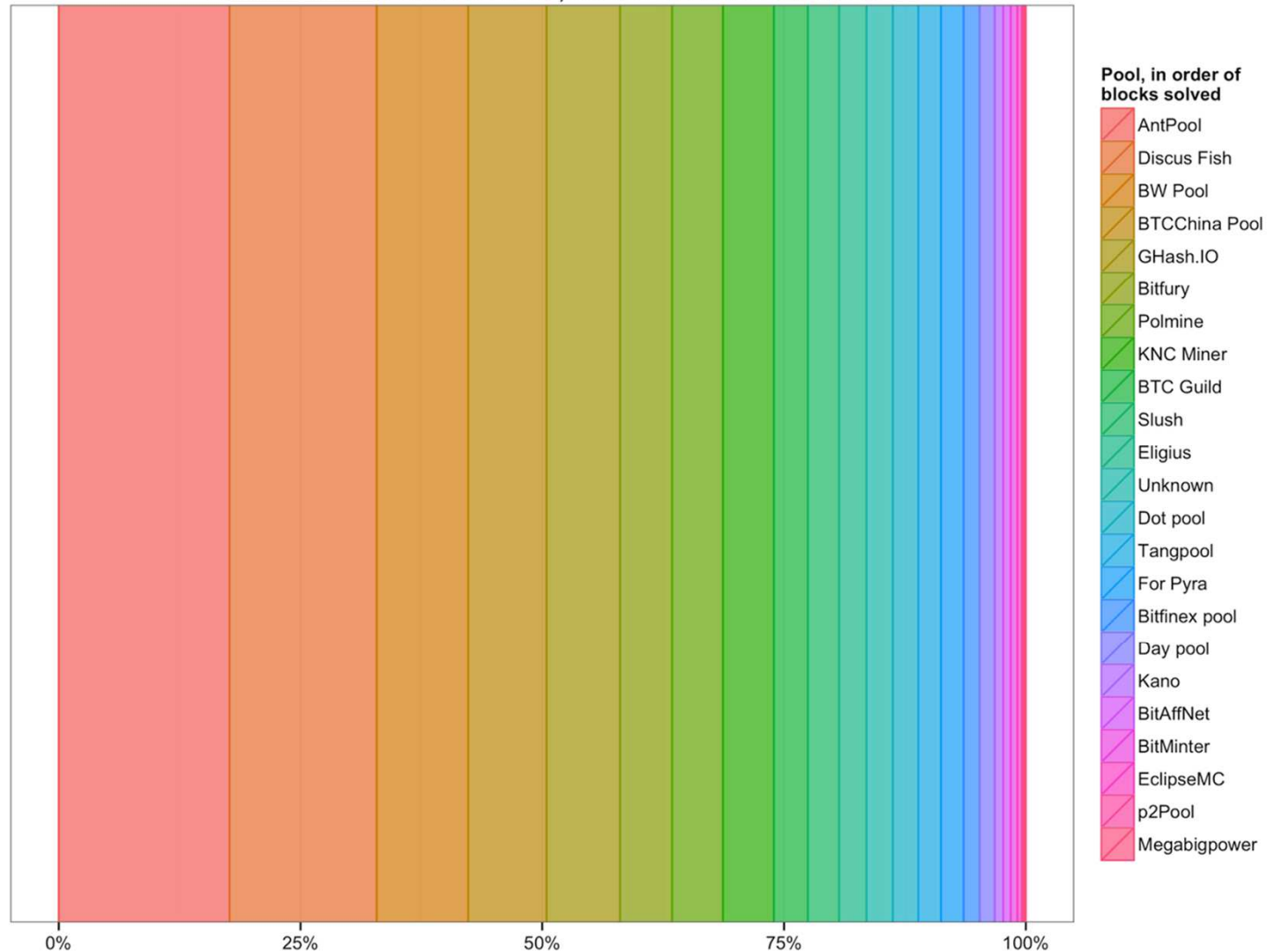
Bitcoin and the Block Chain


- New blocks secure transactions and issue new bitcoin
- Next mining reward adjustment to occur in mid-2016
- Approximately every 10 minutes a new block is created
- Currently more than 345,000 blocks created
- Current throughput is approximately 7 tps
- Majority of mining performed through large pools



Bitcoin Hashrate Distribution

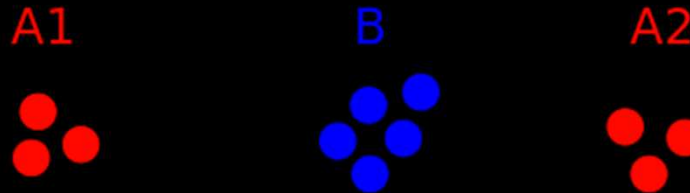
Block makers: percentage of valid network blocks
Feb 22 2015 to Feb 28 2015 , blocks 344586 to 345610





Why Is Decentralizing Trust So Important?

Byzantine Generals' Problem



Positions of the armies. Armies A1 and A2 need to communicate but their messengers may be captured by army B.

Two armies, each led by a general, are preparing to attack a fortified city. The armies are encamped near the city, each on its own hill. A valley separates the two hills, and the only way for the two generals to communicate is by sending messengers through the valley. Unfortunately, the valley is occupied by the city's defenders and there's a chance that any given messenger sent through the valley will be captured.

Global Bitcoin Nodes Distribution

GLOBAL BITCOIN NODES DISTRIBUTION

Reachable nodes as of Mon Mar 02 2015
10:50:20 GMT+0000 (GMT Standard Time).

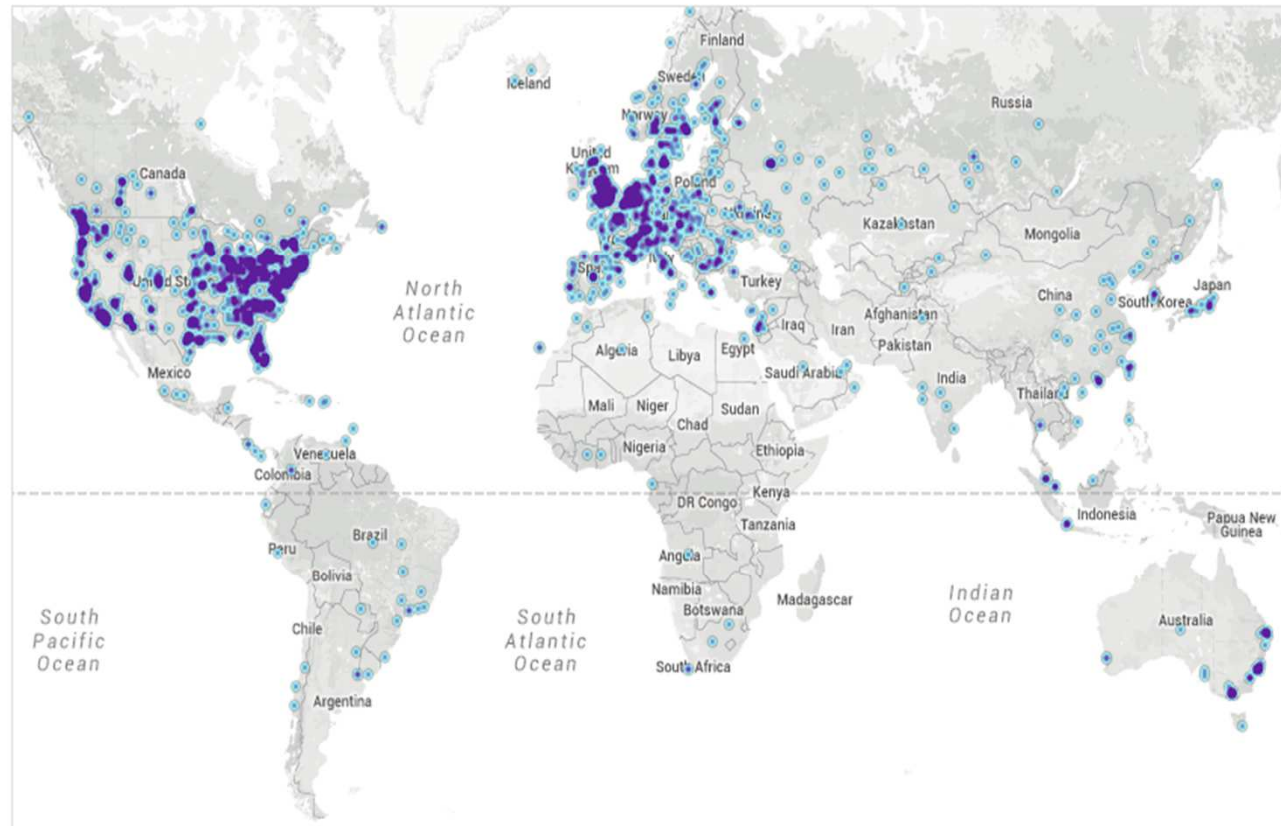
6449 nodes

24-hour charts »

Top 10 countries with their respective number of reachable nodes are as follow.

RANK	COUNTRY	NODES
1	United States	2465 (38.22%)
2	Germany	573 (8.89%)
3	France	426 (6.61%)
4	United Kingdom	403 (6.25%)
5	Canada	337 (5.23%)
6	Netherlands	306 (4.74%)
7	Russian Federation	217 (3.36%)
8	Australia	152 (2.36%)
9	China	131 (2.03%)
10	Sweden	126 (1.95%)

More (98) »



Map shows concentration of reachable Bitcoin nodes found in countries around the world.

De-Central Banks of the Future



De-Central Banks of the Future



Bitcoin Mining Facility in Thailand



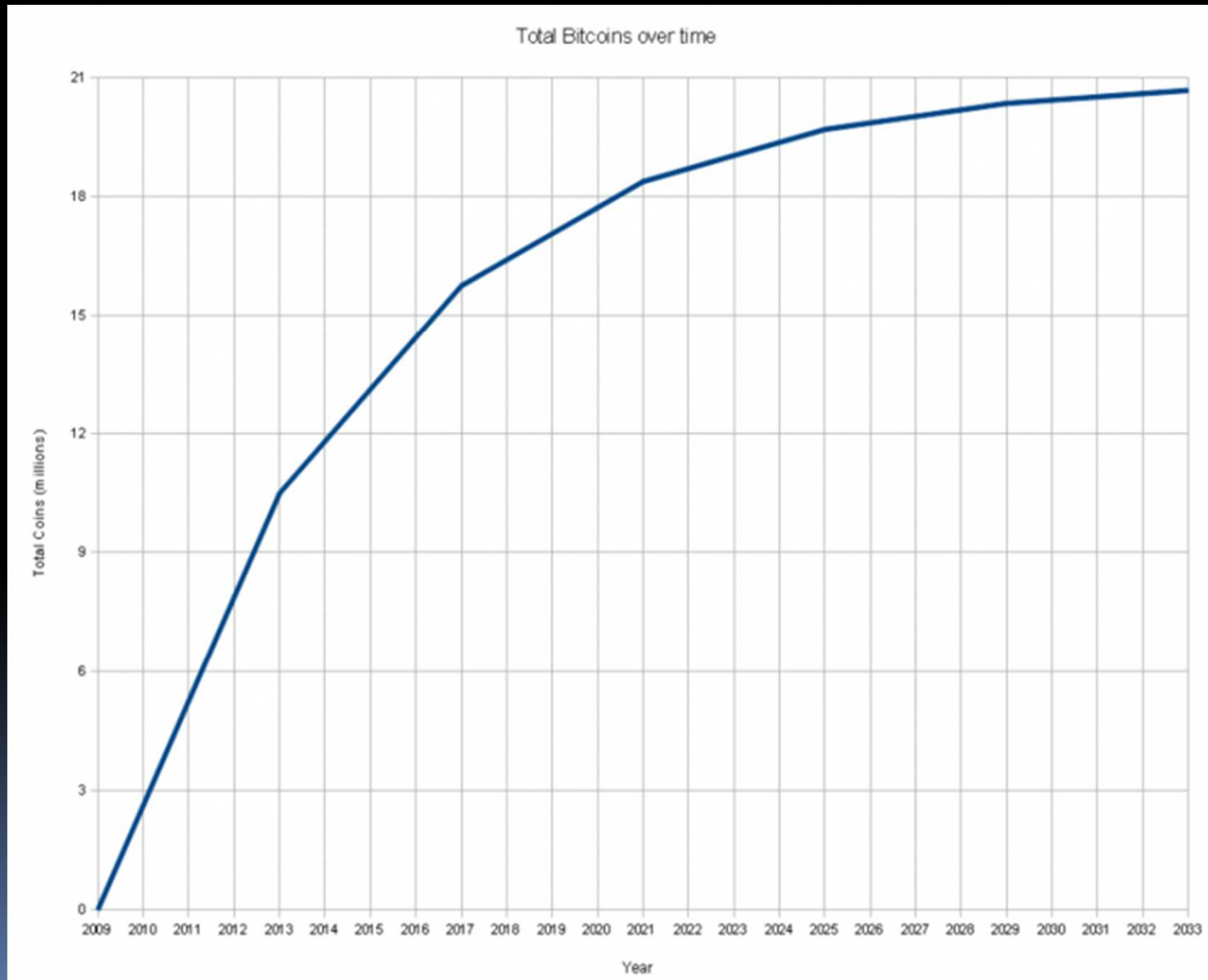
Network Has No Single Point of Failure

- Distributed architecture provides massive resiliency
- Bitcoin is disruption within disruption
- Legacy structures become bypassed
- Bitcoin is neutral to politics, geography, timing, purpose, and amount
- Bitcoin sparks currency competition with national issuers



We Don't Need
Kings To Coin
Our Money

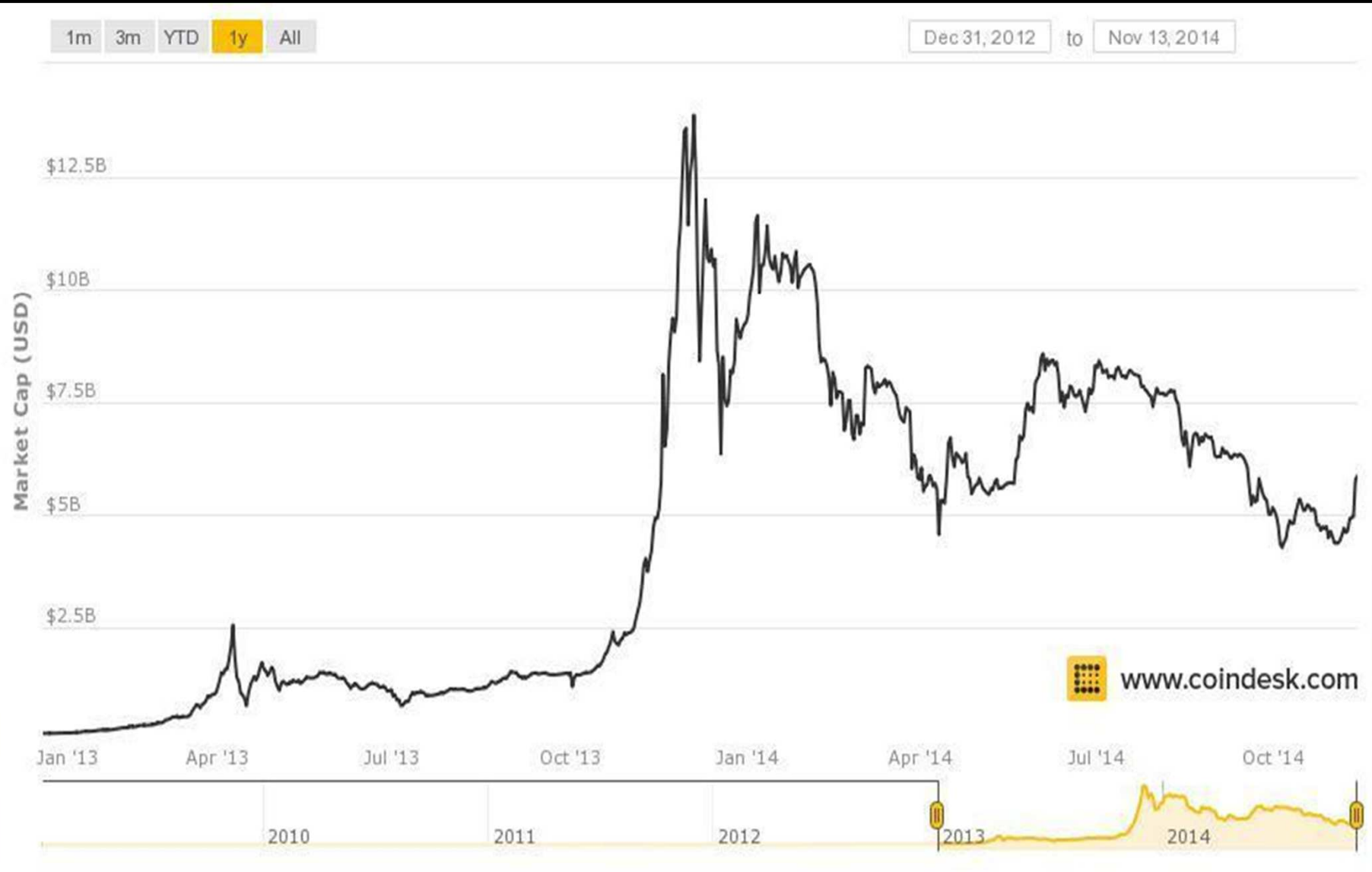
Bitcoin Has Controlled Supply



Bitcoin Is Both Network And Unit

- Capital “B” Bitcoin is a distributed network without the need for a trusted third party (TTP)
- Small “b” bitcoin is the native token (or monetary unit) for this network
- Divisible up to 8 decimal places

Bitcoin Market Capitalization



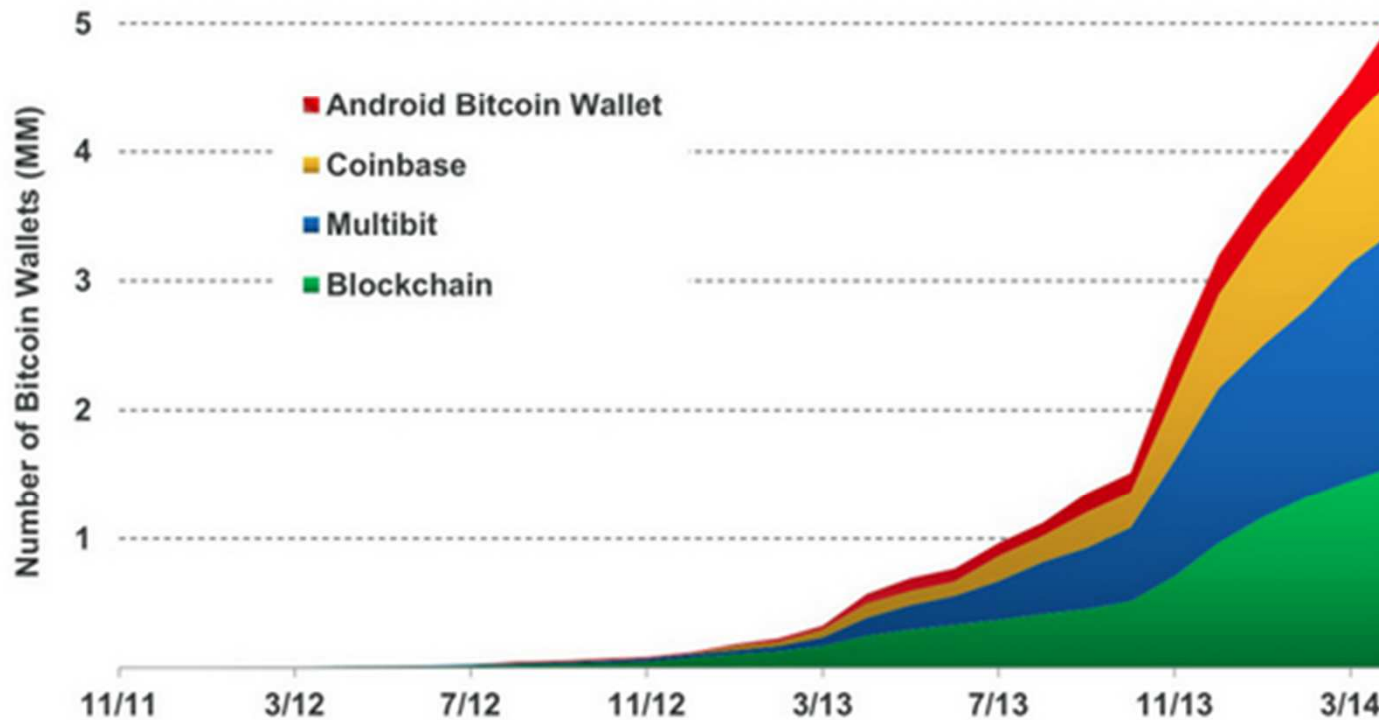
Attributes Similar to Paper Cash

- Reasonable privacy
- Immediate settlement (bearer)
- Transaction irreversibility
- Minimal traceability
- Fungibility

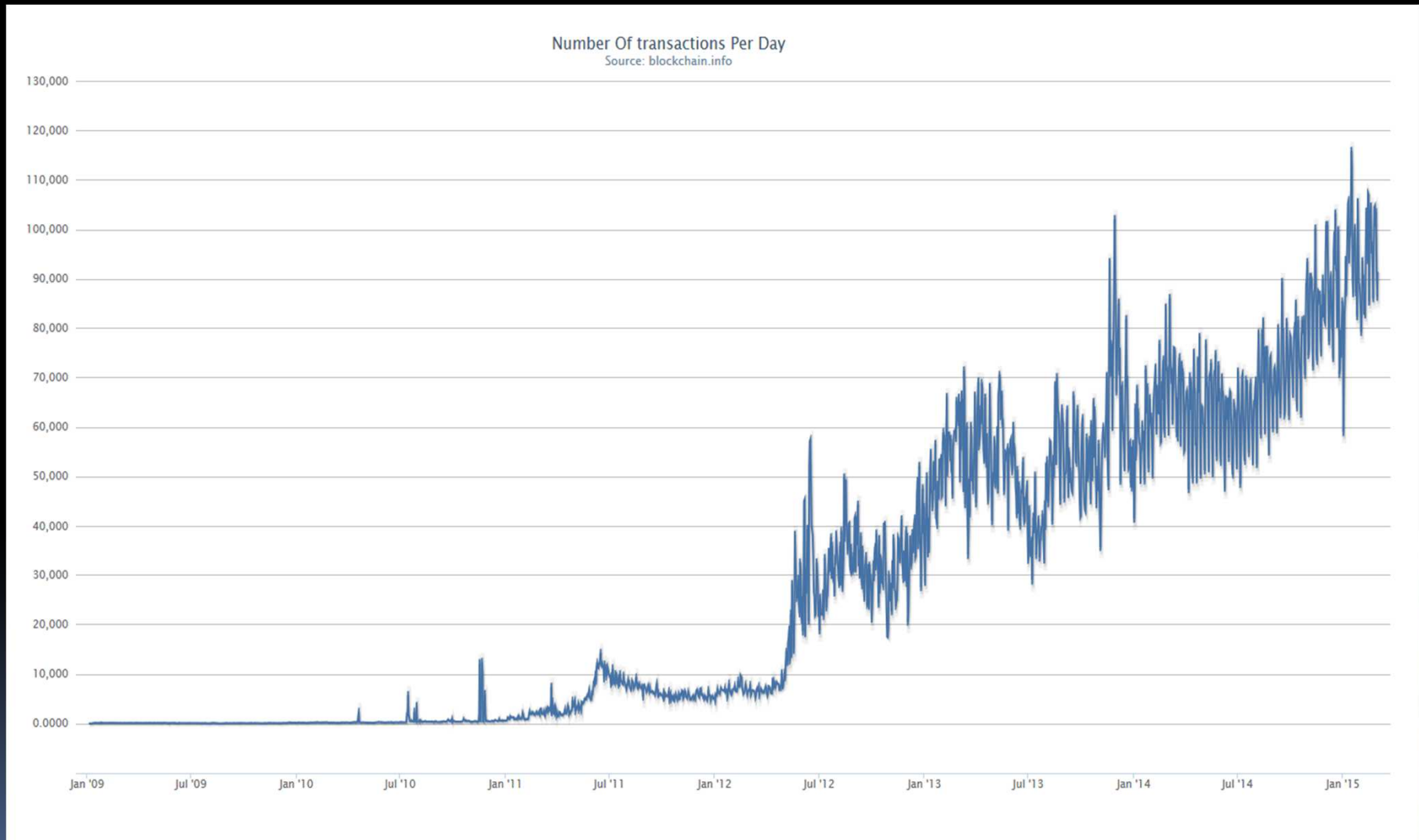
Consumer Interest Is Growing

Fact that ~5MM Bitcoin Wallets (+8x Y/Y) Exist Proves Extraordinary Interest in Cryptocurrencies

Number of Bitcoin Wallets by Wallet Provider, 4/14



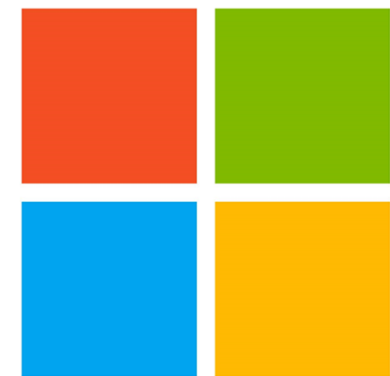
Bitcoin Transaction Volume



Bitcoin Benefits For Consumers

- Personal control of your assets (w/backup)
- Protection from identity theft
- Protection from financial surveillance
- No possibility of counterfeiting
- Bypass certain payment blockades
- Unrestricted cross-border transactions
- Fixed supply of 21 million (no inflation)
- Protection from confiscation


Some Brands That Accept Bitcoin



Microsoft

Bitcoin Benefits For Merchants

- Extend acceptance to countries not reached by Visa, MasterCard, and PayPal (60+)
- Provide payment method for the unbanked
- Not subject to payments embargo
- No disallowed merchant categories codes (MCCs)
- Eliminate chargeback and fraud risk
- Processing fees approaching zero
- Near immediacy of settlement



What Are the Opportunities For Banks and Financial Institutions?

Opportunities For Financial Institutions

1. Trusted safekeeping services
2. Foreign exchange conversion
3. Merchant payment processing
4. Transactional escrow services

Opportunities For Financial Institutions

Wholesale may prove more interesting....

- Determine centralized vs. decentralized
- Utilize existing Bitcoin blockchain
- Improve correspondent banking float
- Better manage counterparty risk


Epiphyte Overview

The logo for Epiphyte, featuring the word "epiphyte" in a lowercase, light blue, sans-serif font, centered within a white rectangular box.

- Bridging the gap between established finance and crypto-finance
- Winner of the 2014 Sibos Startup Challenge
- Enterprise software solutions
- Based in London, UK
- 10+ employees

Bitcoin Politics and Regulation

- Governments regulate exchange endpoints that touch fiat (KYC, AML)
- US government auctions of seized bitcoin demonstrates fungibility
- Governments impose various tax regimes specific to bitcoin
- Smaller nations to use bitcoin as a counterbalance to USD and EUR hegemony
- Remedy to the use of SWIFT network as a financial weapon



Where Will
Disruption Occur
First?

Initial Industries To Be Disrupted


- Mobile and P2P Payments
- Retail Payment Networks
- Asset and Wealth Management
- Global Remittance Market
- Interbank Transfers (SWIFT, Fedwire)

Bitcoin Mobile Is Here Today

3G 2:08

Bitcoin

Your Bitcoin Address:
1KGe NiDw zH5N
rdwN ETj3 hQEx
wr5H MN9e FW



BTC0.2419
≈ EUR 18.3901

Received	Both	Sent
● Apr 9 ←	Donation	+ 0.0015
● Apr 7 →	1LTT9wVq1qigy...	- 0.4005
● Apr 5 →	1Q4H8CY4FpnJ9...	- 2.3010
● Apr 4 →	Burger @ room77	- 0.0754
● Apr 4 ←	1G9Hjz1JCUqnh...	+ 2.2452
● Mar 19 →	1Q4H8CY4FpnJ...	- 0.0505
● Mar 18 ←	Beer with Lisa	+ 0.01

Use at your own risk. Read the [safety notes](#).

3G 2:15

Address Book

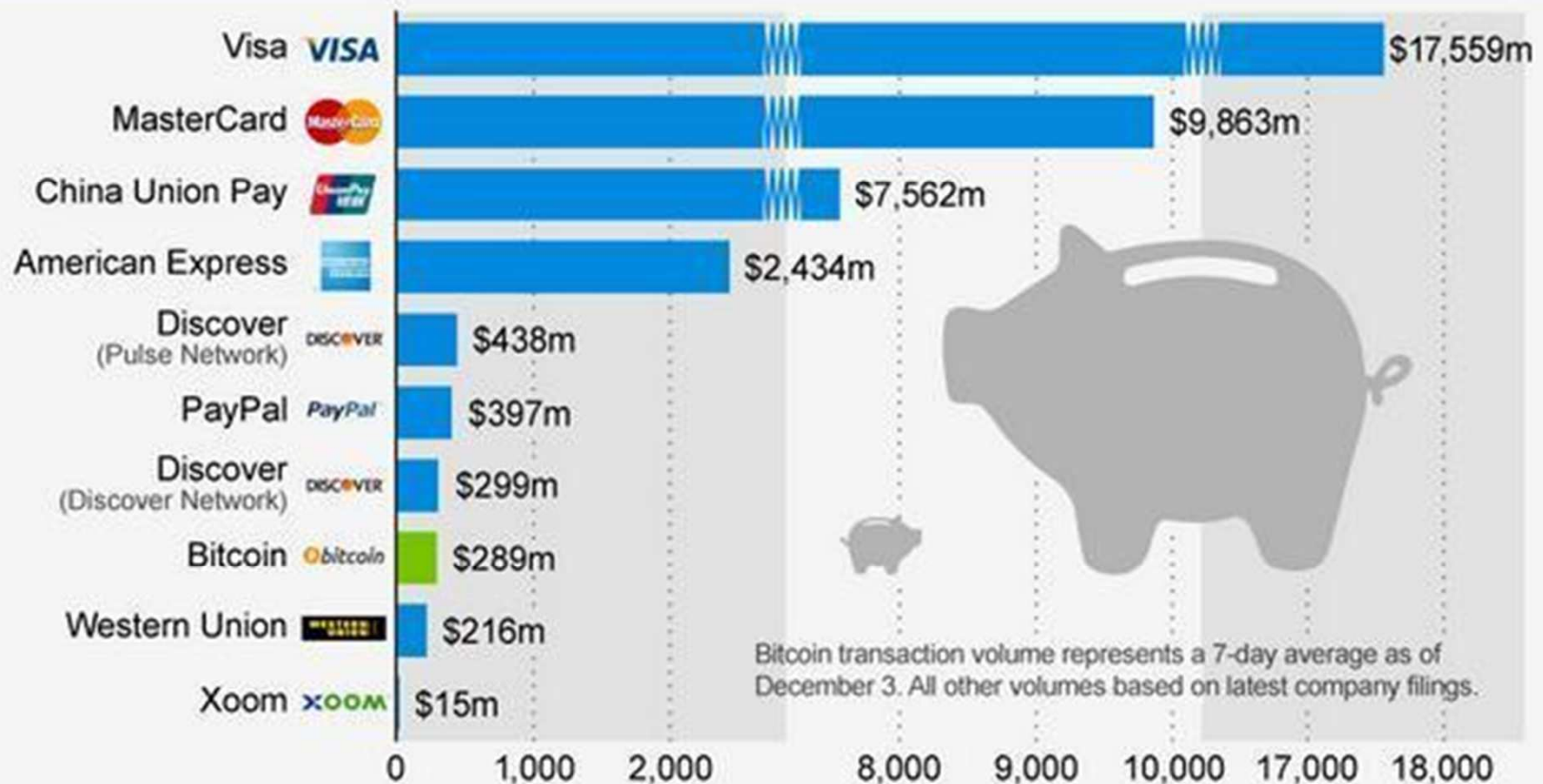
Your addresses Sending addresses

Beer with Lisa	1D3i Jo5n x3nY R9aN bJwR MTUK H4JW niDB Ty
Burger @ room77	1Eyu 2Nr JHjPX LSJa vZw3 GFgm fFRP kWue 5H
Donation	169E nuJg Jf3L 31cS kMLB m5hH vk42 s8Qi 4C
Savings	1LTT 9wVq 1qig yhQx uvkF ynnp LYKr 5FLn bJ
Tim	1G9H jz1J CUqn hNQM pxLh sVL6 FD8C oo4H hR
Wendy	1Q4H 8CY4 FpnJ 93SP bdz4 CqgV 714K Xaef Rp

Bitcoin Advancing On Other Networks

How Bitcoin Activity Stacks Up Against Other Payment Networks

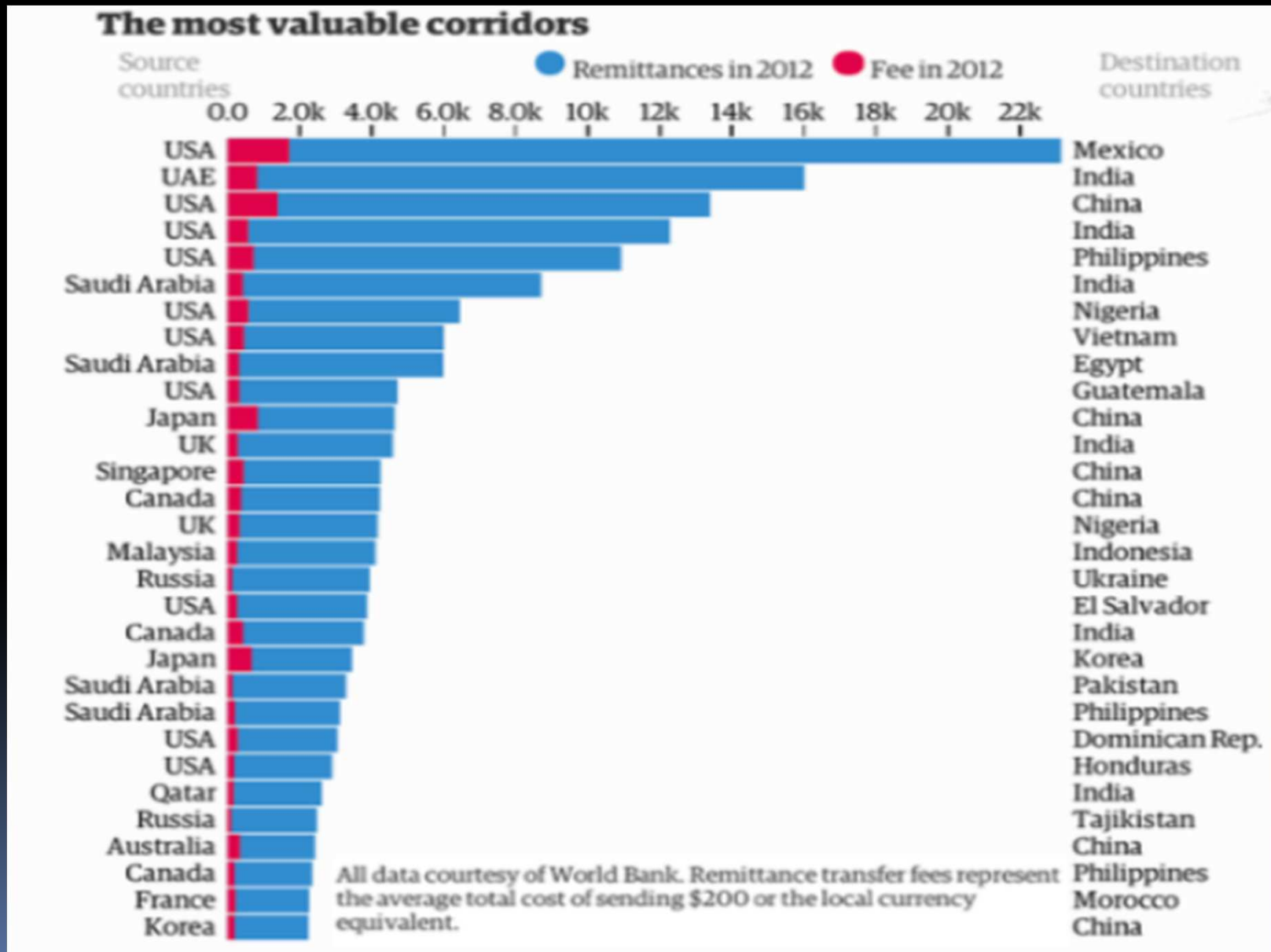
Average daily transaction volume of selected payment networks (in million U.S. dollars)



Bitcoin is Digital Gold



Global Remittance Flows

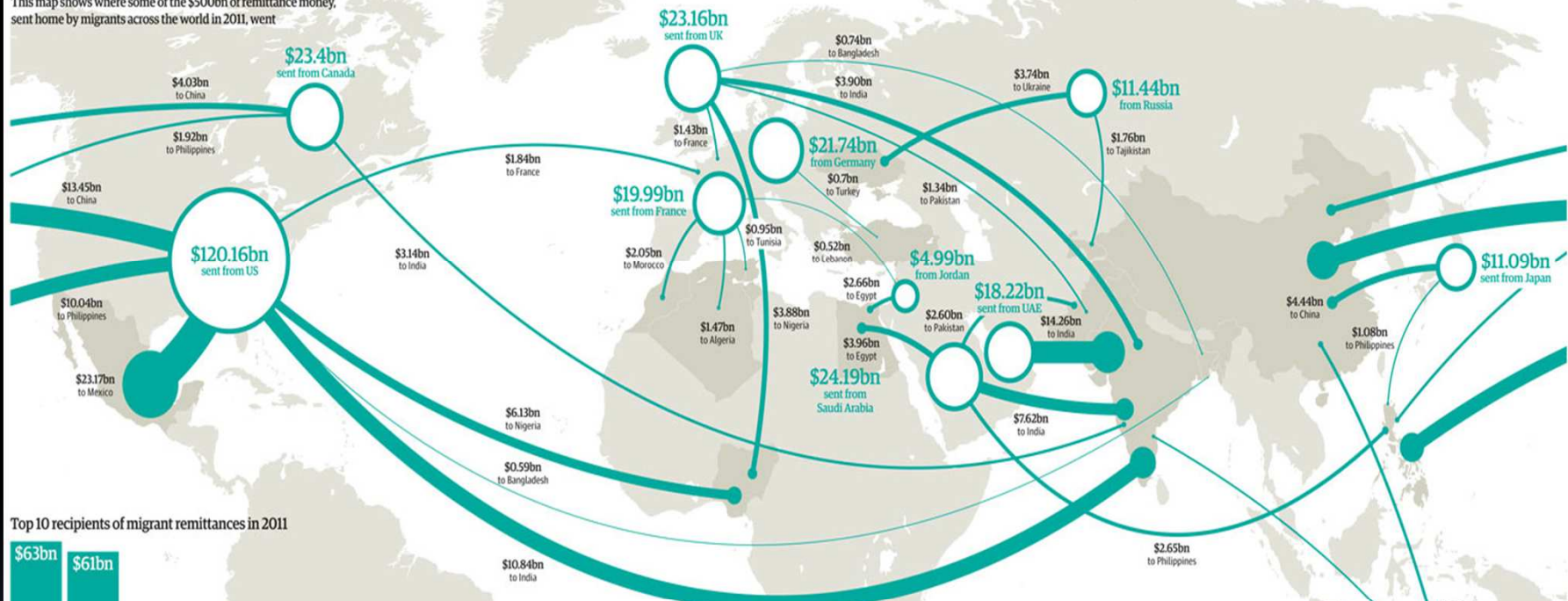


Global Remittance Flows

Where the money goes

This map shows where some of the \$500bn of remittance money, sent home by migrants across the world in 2011, went

theguardian



Top 10 recipients of migrant remittances in 2011



Top 10 recipients of migrant remittances as a share of GDP

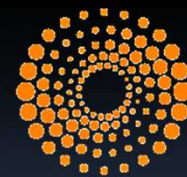


SOURCE: WORLD BANK


XBT: Proposed ISO 4217 Currency Code



Foreign Exchange Data Feeds Quoting XBT



REUTERS



Are We
Entering a
Post-Legal
Tender Age?

The Post-Legal Tender Age

- Trend towards monetary decentralization will alter and outlive traditional political institutions
- Central banks, not commercial banks, are the ones being challenged by Bitcoin and cryptocurrencies

Monetary Policy Impact

No Fractional Issuance - fractional reserve banking becomes nearly impossible without the emergence of money substitutes

Healthy Deflation - opportunistic and unrestrained inflation gives way to natural deflation

Reduction in detrimental business cycles - interest rates respond more to the risk of the lending activity rather than central bank open market operations

Fiscal Policy Impact

De-emphasize Income Tax - governments gradually shift from taxing income to taxing consumption

Check on Spending - government spending becomes constrained by actual revenue raised, which means that unpopular expenditures will be difficult to fund

Quotes From Establishment



“I think [bitcoin] is a technical tour de force.” -*Bill Gates*

“I think the fact that within the bitcoin universe an algorithm replaces the functions of [the government]... is actually pretty cool.” -*Al Gore*



“Bitcoin is the beginning of something great: a currency without a government, something necessary and imperative.” -*Nassim Taleb*

Quote From Me



“Bitcoin is to legal tender
as BitTorrents are to copyrights.”

- *Jon Matonis*

Thank You!

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