



breaking bitcoin

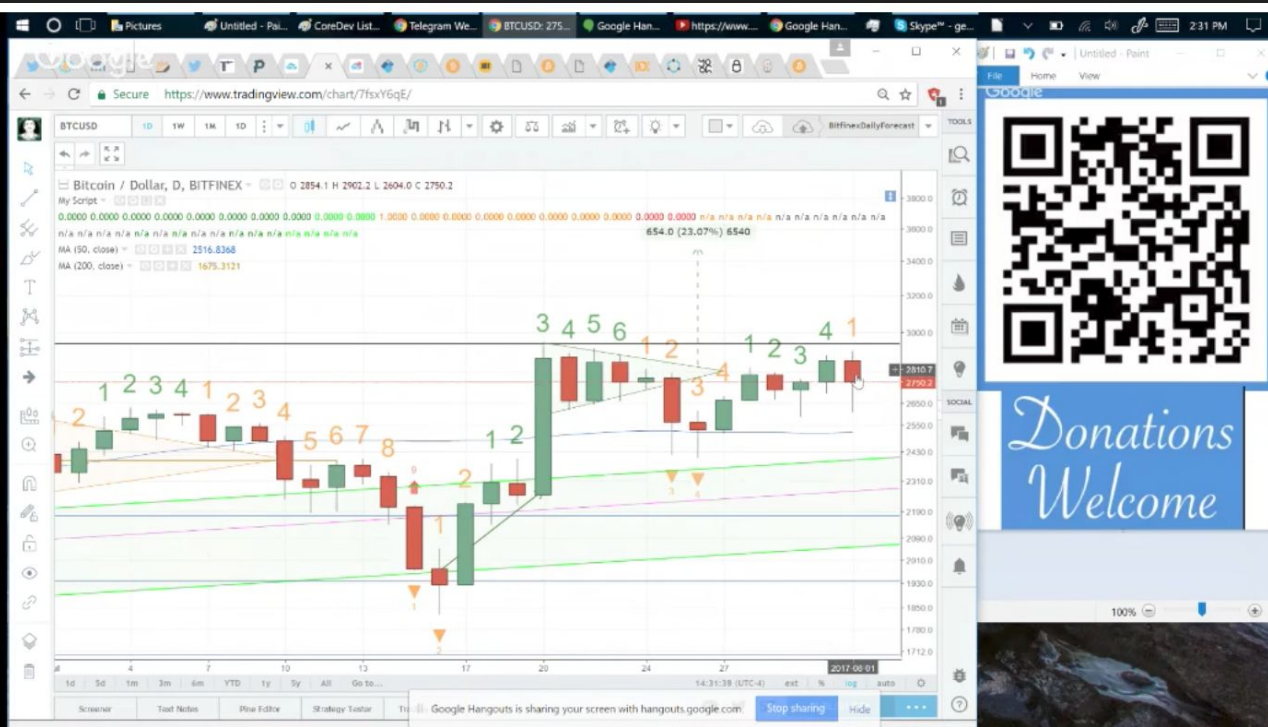
Socialized Costs of Hard Forks

Free Money Wasn't Free



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2017.08.01 18:12 UTC

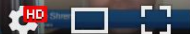


World Cryp...

6:12:17 / 7:44:33



WGN





Bitcoin Cash Charts



Zoom 1d 7d 1m 3m 1y YTD ALL

From Jul 31, 2017 To Sep 7, 2017





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Free Money!!!
Or Was it?



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Negative Externalities



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Positive Externalities



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Users

More \$\$\$



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Miners

More \$\$\$



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Exchanges

More \$\$\$



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Price



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One-time vs. Permanent Costs



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One-time Costs



Exchanges

- Deposit and Withdrawal Halted
- Cold Storage
- Auditing of New Software
- One-time Withdrawal or Listing of New Token
- New Infrastructure



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Merchants and Payment Processors

- Payments Halted
- Chain Detection
- New Infrastructure



Wallets

- Chain Detection
- Splitting Tools
- Possible Support for New Token



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Miners

- Token Switching Algorithm



Users

- Cold Storage
- Exposed Public Key
- Loss of Privacy
- Regulatory Burden



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Permanent Costs



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Same Addresses



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Unreliable Blocks



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Reorg Attacks



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Chain Hopping Attacks



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Privacy Loss



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Replay Attacks



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Future Hard Forks



Why Hard Forks Are Attractive

- Cleaner Altcoin Launch
- Great Code Base to Start From
- Fair Distribution
- Hacking Fiduciary Duty
- Easy Listing on Exchanges



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Bitcoin Gold/Bitcoin GPU






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Bitcoin 2x



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All ▾	Currencies ▾	Assets ▾	USD ▾
#	Name	Market Cap	Price
1	 Bitcoin	\$44,265,751,460	\$2685.55
2	 Bitcoin Money	\$21,264,853,203	\$226.89
3	 Bitcoin Bucks	\$6,708,060,869	\$0.174994
4	 Bitcoin Cash	\$5,902,037,749	\$358.09
5	 Bitcoin Chips	\$2,230,249,404	\$42.66
6	 Bitcoin Bills	\$1,747,368,000	\$0.194152
7	 Bitcoin Note	\$1,379,063,804	\$184.81
8	 Bitcoin Ounce	\$1,360,258,555	\$14.45
9	 Bitcoin Check	\$804,426,639	\$0.289411
10	 Bitcoin Coin	\$649,530,498	\$43.68



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Immunization



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Negative Externalities



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Questions?

@jimmysong on Twitter, Medium and Github