

## 31.5: Reading- Bitcoin and Virtual Currencies

### Background Information and Key Technical and Legal Issues

Bitcoin, a peer-to-peer digital currency, operates without the involvement of traditional financial institutions and provides a direct digital alternative to physical currencies and commodities. Governments worldwide generally do not yet see it and other digital currencies as a [destabilizing “threat,”](#) and some scholars [have argued](#) that it may best be seen as a speculative investment. Bitcoin has certainly had its ups and downs: As of April 1, 2015, its value stood at \$242 per bitcoin, after a January 14 low of \$177 and a March 11 high of \$296.

The currency has also had a long run of troubles with hackers and fraud, most spectacularly in 2014 when the exchange Mt. Gox [declared bankruptcy](#) after bitcoins worth \$460 million at the time were [apparently stolen](#). Bitcoin’s decentralized model and degree of anonymity have also raised concerns over its use in illegal money transfers, fueling potential illicit commerce across the “dark web” and on [sites such as Silk Road](#).

The organization Bitcoin.org, meanwhile, touts the currency’s potential for opening up a “whole new platform for innovation”:

Basic truths about Bitcoin can be hard to discern amid the hype and turmoil, but a 2015 Congressional Research Service (CRS) report, “Bitcoin: Questions, Answers and Analysis of Legal Issues,” provides key background information as well as an overview of major issues.

Bitcoin transactions take place online directly between the buyer and seller, with each having a unique encryption. Transactions are recorded on a decentralized public ledger available for network users to verify valid transactions. Special users on the network (“miners”) oversee this verification process. After verifying a block of transactions, miners are paid with 25 newly generated bitcoins and the transactions are processed and approved; this is how the total number of bitcoins grows. The number in circulation as of January 2015 was approximately 13.7 million, with the maximum set at 21 million. As of April 2015, their total value was \$3 to \$4 billion. This relatively small figure prevents bitcoins from having a significant effect on the Federal Reserve’s monetary policy (an argument that is frequently, and incorrectly, brought up as one of the dangers of Bitcoin).

The CRS report explores the following technical, functional and legal issues:

Bitcoin advantages:

- Lower transaction costs: Because Bitcoin operates without a third-party intermediary, merchants are able to avoid the fees traditionally charged by payment systems such as credit cards.
- The possibility of increased privacy: Bitcoin provides a heightened degree of privacy for purchases and transactions, though by the system’s nature, a complete list of all transactions is forever recorded to each user’s encrypted identity.
- Protection from inflation: Since Bitcoin’s circulation is not linked to currency or government regulation, it is not subject to standard inflation. However, it more than makes up for this in volatility.

Bitcoin disadvantages:

- Severe price volatility: The value of a bitcoin is determined by supply and demand, and as a result, can fluctuate rapidly. The value was as high as \$1,100 in December 2013, then hit a low of \$177 in January 2015. This extreme fluctuation is more characteristic of a commodity than a currency.
- Not legal tender: Debtors are not required to accept it, and without any formal backing other than the computer program to which it is linked, Bitcoin can be seen as an “unattractive vehicle” for holding and accumulating wealth.
- Uncertain security from theft and fraud: While the counterfeiting of bitcoins is allegedly impossible, the system has at times found itself vulnerable to large security breaches and cyber-attacks. Most recently, Bitstamp, a large European Bitcoin exchange, lost 19,000 bitcoins (valued at about \$5 million) in a digital security breach. This follows the massive problems with Mt. Gox in 2014 and the collapse of other exchanges in 2011.
- Vulnerability of Bitcoin “wallets”: Purchased or mined bitcoins are stored in a [digital wallet](#) on the user’s computer or mobile device, and digital keys can be lost, damaged or stolen. Paper or offline storage is an option, but not always practiced.

The CRS report notes that, given the powers articulated in the U.S. Constitution, specifically the authority “to coin money” and “regulate the value thereof,” the responsibility to oversee digital currency falls upon Congress. As of now, Congressional actions remain in the exploratory phase, with the Senate Finance Committee having only recently asked the Government Accountability Office (GAO) to review tax requirements and compliance risks. The tax code lacks clarity on how such currency should be treated: Is it digital currency, property, barter or foreign currency? Early concerns have focused more on tackling consumer protection

issues than tax ambiguities, and as a result, the GAO [recommended increased inclusion](#) of the Consumer Financial Protection Bureau in questions related to Bitcoin.

Federal banking regulators have yet to issue guidance or regulations governing how banks are to deal with bitcoins. In a [February 2014 statement](#), Federal Reserve chair Janet Yellen said: “Bitcoin is a payment innovation that’s taking place outside the banking industry.... There’s no intersection at all, in any way, between Bitcoin and banks that the Federal Reserve has the ability to supervise and regulate.” (See a [2014 paper](#) from the Federal Reserve on technical background and data analysis.) Some state financial authorities have taken steps to devise regulations, with New York’s Department of Financial Services (NYDFS) in the lead.

According to the CRS report, other legal issues with Bitcoin include:

- Counterfeiting criminal statutes: It is illegal to counterfeit both U.S. and foreign currency, but current monetary laws do not mention digital currency. Given that Bitcoin is a peer-to-peer transaction without any formal involvement by a regulatory body or a government, it is unclear if there is a role or responsibility for the U.S. legal system to intervene if counterfeiting occurred in such a situation.
- Federal tax laws: To date, the IRS has done little to address the tax implications of virtual currencies. Instead, the IRS has focused on public education by issuing guidelines indicating that for now, virtual currency will be treated as property for tax purposes, and within that framework, all corresponding tax laws apply.
- Federal anti-money laundering laws: To fight illegal and terrorist-related financial transactions, the Bank Secrecy Act (BSA) requires financial institutions to keep records. This allows suspicious withdrawals and transactions to be tracked. These requirements would conceivably be placed on any business that engages in the exchange of bitcoins for U.S. or foreign currency.



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