



## BITCOINS - VIRTUAL CURRENCY

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### BITCOINS

- Bitcoin is a form of virtual or digital currency. It is not legal tender and is not backed by any government.
- Federal agencies such as the U.S. Treasury Department, the Government Accountability Office, the Internal Revenue Service, and the Congressional Research Services have issued guidance on how existing laws apply to virtual currency activities.
- A proposed federal law calls for a five-year moratorium on bitcoin regulation.
- New York has proposed regulation that would, among other things, require firms engaged in virtual currency to have a BitLicense.
- California has enacted a law that allows the use of alternative currency.

### ISSUE

The use of bitcoins as virtual currency, the laws that govern it, and other states' attempts to regulate it.

This report updates OLR Report [2014-R-0050](#).

### SUMMARY

"Bitcoin" is a form of virtual or digital currency, that allows financial transactions to be conducted on a network using computer codes. It is a form of exchange that operates like a currency but does not have all the attributes of real currency.

There are no federal or state laws that specifically govern bitcoins. However, many existing laws apply to certain virtual currency activities.

The U.S. Treasury Department's Financial Crimes Enforcement Network (FinCEN) has provided guidance indicating that, under federal law, a virtual currency user is not a money transmitter and is therefore not subject to the registration, reporting, and recordkeeping regulations for money services businesses (MSBs). However, virtual currency administrators and exchangers may be regulated as money transmitters but should not be considered dealers in foreign exchange.

A U.S. Government Accountability Office (GAO) report has concluded that a taxpayer who receives virtual currency as payment for real goods or services may earn taxable income.

The Internal Revenue Service (IRS) has announced that, for tax purposes, bitcoins are property, not currency.

A Congressional Research Services (CRS) report raises a number of legal and regulatory concerns about the use of bitcoins, including its potential for facilitating money laundering, treatment under federal securities laws, and potential impact on the regulation of foreign exchange trading.

A federal bill, HR 5777, has recently been submitted to Congress that calls for a five-year moratorium on digital currency regulation in the United States.

Two states have attempted to regulate the use of virtual currencies. New York has proposed regulation that would require a "BitLicense" for businesses that conduct transactions in virtual currencies, such as bitcoins. California has enacted a bill that allows the use of certain alternative currencies as lawful money but requires no one to accept them.

The federal Consumer Financial Protection Bureau (CFPB) and the Connecticut Department of Banking (DOB) have issued consumer advisories on virtual currencies ([CFPB Advisory - August 11, 2014](#) and [DOB Advisory - May 12, 2014](#)).

The regulation of virtual currencies has implications for many areas of law, including financial crimes, taxation, labor, campaign finance, and cyber security.

## **BITCOINS**

### ***What is it?***

Bitcoin is a form of virtual currency. It is a form of exchange that operates like a currency but does not have all the attributes of real currency. FinCEN regulations define real "currency" as the coin and paper money of the United States or of any other country that:

1. is designated as legal tender,
2. circulates, and
3. is customarily used and accepted as a medium of exchange in the country where it is issued (31 CFR § 1010.100(m)).

No country has designated bitcoins as legal tender. Therefore, it does not meet the definition of real currency.

### ***How did it originate?***

A computer programmer created bitcoins in 2009 as a way to issue and transfer virtual currency across the Internet, using software that allows participation by everyone.

### ***How does it operate?***

Bitcoins are created as virtual currency on a network through a process called "mining." This is a process in which a person (1) installs bitcoin mining software on his or her computer or mobile device, (2) solves a complex equation, and (3) receives a block of 25 bitcoins. Bitcoins come in the form of a unique string of alphanumeric characters known as the bitcoin address. The bitcoin address contains two uniquely related cryptographic keys (basically long random numbers), "private key" and "public key." The private key is saved in a virtual wallet and is known only to the bitcoin owner, who uses the key to conduct a transaction. The public key associated with the bitcoin address is public information and is used to verify the transaction. By Bitcoin's program design, there will be a maximum of 21 million bitcoins in circulation once all bitcoins have been mined, which the program's design projects to be in 2140 ([May 2013 GAO – Report](#)). According to CRS, as of July 2014 there were about 13 million bitcoins in circulation ([July 15, 2014 CRS Report](#)).

Users may also acquire bitcoins in circulation by purchasing them or accepting them as gifts or payments for good or services. Users conduct bitcoin transactions by sending digitally signed messages to the network. A message to the network to make a payment using bitcoins must contain the alphanumeric address (the code) from the public key and a digital signature that proves that the person also has possession of the corresponding private key. All the bitcoins that are sent to a particular address may be spent by anyone who has the corresponding private key. If a private key is lost, the bitcoins associated with that key cannot be recovered.

A critical part of the bitcoin network is a public database known as a "block chain." The block chain keeps a record of all transactions and tracks current and past bitcoin owners. Transactions are conducted anonymously; owners of bitcoins are identified by bitcoin addresses, not names or other personal information. The people who verify transactions and maintain the block chain (the public database) are "miners," who are compensated with transaction fees and newly issued bitcoins.

Bitcoins can be bought and sold on bitcoin exchanges where they are priced against the value of other currencies. Additionally, bitcoin ATMs allow users to convert cash into bitcoins or bitcoins into cash. On February 20, 2014, *USA Today* reported that the first bitcoin ATM in the country was unveiled in Austin, Texas with reports of others in Boston and Albuquerque ([USA Today - Bitcoin ATMs come to USA](#)).

## **FEDERAL LAWS AND GUIDELINES THAT APPLY TO BITCOINS**

There are no laws that specifically govern bitcoins. However, a few federal agencies have issued guidance on how existing laws apply to virtual currency activities.

### ***U.S. Treasury Department - FinCEN Guidance***

On March 18, 2013, FinCEN, under its authority to administer the Bank Secrecy Act (BSA), issued guidance on how it characterizes certain activities involving virtual currencies under the BSA and FinCEN regulations ([FIN-2013-G001](#)). The FinCEN guidance addresses “convertible” virtual currency, which is the type of virtual currency that has an equivalent value in real currency or acts as a substitute for real currency.

The FinCEN guidance establishes whether the registration, reporting, and record keeping requirements for money services businesses (MSBs) apply to persons engaged in virtual currency activities (31 CFR § 1010.100(ff)).

FinCEN categorizes persons engaged in virtual currency activities as administrators, users, or exchangers, and defines these terms as follows:

1. “Administrators” are persons engaged in the business of issuing and redeeming virtual currency.
2. “Users” are persons that obtain virtual currency to purchase goods or services.
3. “Exchangers” are persons in the business of exchanging virtual currency for real currency, funds, or other virtual currency ([FIN-2013-G001](#)).

***Virtual Currency Users.*** According to FinCEN’s guidance, a user who obtains convertible virtual currency and uses it to purchase real or virtual goods or services is not an MSB because the activity does not fit within the definition of “money transmission services” and is therefore not subject to FinCEN’s registration, reporting, and recordkeeping regulations for MSBs. The term “money transmission

services” means the acceptance of currency, funds, or other value that substitutes for currency from one person and the transmission of currency, funds, or other value that substitutes for currency to another location or person by any means (31 CFR § 1010.100(ff)(5)(i)(A)).

**Virtual Currency Administrators and Exchangers.** Based on FinCEN’s guidance, an administrator or exchanger that accepts and transmits a convertible virtual currency or buys or sells convertible virtual currency for any reason is a money transmitter, unless specifically exempt. FinCEN’s regulations define the term “money transmitter” as a person that provides money transmission services, or any other person engaged in the transfer of funds (31 CFR §§ 1010.100(ff)(5)(ii)(A)-(F)).

Accepting and transmitting anything of value that substitutes for currency makes a person a money transmitter under the regulations because the definition of a money transmitter does not differentiate between real currencies and convertible virtual currencies.

FinCEN includes in its guidance the appropriate regulatory treatment of administrators and exchangers of virtual currency under different scenarios.

**Dealers in Foreign Exchange.** FinCEN does not consider a person who accepts real currency in exchange for virtual currency, or vice versa, as a “dealer in foreign exchange” because virtual currency is not the currency of any country and under FinCEN regulations, a person must exchange the currency of two or more countries to be considered a dealer in foreign exchange (31 CFR § 1010.100(ff)(1)).

### **Government Accountability Office Report**

In May 2013, the GAO issued a report to the U.S. Senate stating that using virtual currencies may produce taxable income depending on whether the transaction takes place in a “closed-flow” or an “open-flow” virtual currency system ([May 2013 GAO – Report](#)). According to the GAO report, a person who receives virtual currency as payment for real goods or services (i.e., an “open-flow” system), may have earned taxable income because the virtual currency can be exchanged for (1) real goods or services or (2) government-issued currency. However, when virtual currency is limited to the purchase of virtual goods or services (i.e., a “closed-flow” system), taxable income is not produced.

The GAO recommended that the IRS provide information to taxpayers on the tax reporting requirements for virtual currencies.

## ***Internal Revenue Service Guidelines***

On March 25, 2014, the IRS issued [Notice IR-2014-36](#), stating that virtual currency should be treated as property for U.S. federal tax purposes. Therefore, the general tax principles that apply to property transactions apply to transactions using virtual currency. Among other things, this means that:

1. Wages paid to employees using virtual currency (a) are taxable to the employee, (b) are subject to federal income tax withholding and payroll taxes, and (c) must be reported by an employer on a Form W-2.
2. Payments using virtual currency made to independent contractors and other service providers are taxable and self-employment tax rules generally apply.
3. Gains or losses from the sale or exchange of virtual currency depend on whether the virtual currency is a capital asset (i.e., an asset used to make money).
4. A payment made using virtual currency is subject to information reporting to the same extent as any other payment made using property.

## ***CRS Report to Congress***

On July 15, 2014, CRS issued a report to Congress in which it discussed the benefits and concerns associated with the use of bitcoins. According to the [CRS Report](#), bitcoins offer users the advantages of lower transaction costs, increased privacy, and long-term protection from inflation. The disadvantages include (1) the volatility of the price of bitcoins and (2) security concerns related to theft and fraud.

The CRS report concludes that bitcoin also raises a number of legal and regulatory concerns, including its potential for facilitating money laundering, treatment under federal securities law, and role in the regulation of foreign exchange trading. CRS assessed the applicability of selected federal laws to digital currency and concluded that:

1. It is unclear whether the counterfeiting criminal statutes (18 USC §§ 470-477 & 485-489) apply to digital currency.
2. It can be argued that the Stamp Duty Payments Act (18 USC § 336) does not apply to digital currency.
3. It does not appear that the Electronic Fund Transfer Act (15 USC §§ 1693, et. seq.) is applicable to digital currency in transactions involving no depository institutions, such as banks or credit unions.

4. It is possible that the Commodities Trading Commission regulations apply to digital currency given the regulations' definition of the term "commodity."
5. Investing in bitcoins may trigger the Securities Exchange Commission regulations.

### ***The Proposed Cryptocurrency Protocol and Moratorium Act***

A recently proposed federal legislation ([HR 5777](#)), titled the Cryptocurrency Protocol Protection and Moratorium Act, would prohibit statutory restrictions or regulations for five years, effective June 15, 2015. The bill was submitted to Congress on December 1, 2014 and has since been referred to both the House Committee on Ways and Means and the House Committee on Financial Services. The proposed bill would also classify virtual currencies as traditional currencies under U.S. tax regulations.

### **STATES' ATTEMPTS TO REGULATE BITCOINS**

New York and California have attempted to regulate virtual currency activities.

#### ***New York***

The New York State Department of Financial Services has [proposed regulation](#) that would require a new financial services license, termed a "BitLicense," for businesses handling transactions in virtual currencies. The proposed regulation contains consumer protection, anti-money laundering compliance, and cyber security rules tailored for virtual currency companies. The initial comment period to solicit public feedback on the proposed regulation closed on October 21, 2014.

#### ***California***

The California General Assembly enacted a bill ([AB-129](#)), signed by the governor on June 28, 2014, that amends the Corporations Code relating to business associations. The law allows the issuance and use of alternative currency that (1) is redeemable for lawful U.S. currency or (2) has value based on the value of lawful U.S. currency. The law specifies that no one is required to accept alternative currency.

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