

Bitcoin - Virtual Currency

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Issue

Describe the use of Bitcoin as virtual currency, the laws that govern it, and states' attempts to regulate it. (This report updates OLR Report [2014-R-0290](#).)

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.

Several existing laws apply to certain virtual currency activities and a number of federal agencies and offices have provided rules or guidance regarding virtual currency use.

The U.S. Treasury Department's Financial Crimes Enforcement Network (FinCEN) has issued 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. However, virtual currency administrators and exchangers may be regulated as money transmitters, but not dealers in foreign exchange.

Bitcoins

Bitcoin is a form of virtual or digital currency. It is not legal tender and is not backed by the U.S. government.

Federal agencies such as the U.S. Treasury Department, Government Accountability Office, and Internal Revenue Service have issued guidance on how existing laws apply to virtual currency activities.

A 2014 federal proposal ([H.R. 5777](#)) called for a five-year moratorium on cryptocurrency restrictions or regulation, but it died in the House.

The Internal Revenue Service (IRS) treats Bitcoins as property, not currency. The Treasury Inspector General for Tax Administration (TIGTA) conducted an audit to evaluate the IRS's strategy for addressing virtual currencies and recommended that, among other things, the IRS should develop a coordinated virtual currency strategy and provide updated guidance on documentation requirements and tax treatments.

Congressional Research Service (CRS) reports raise several 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.

Many states are taking steps to regulate the use of virtual currencies. California, Connecticut, Florida, New York, and Washington have laws that regulate virtual currency-related activities. Illinois has regulatory guidance regarding digital currencies. And Hawaii considered establishing a working group to study blockchains.

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

The federal Consumer Financial Protection Bureau (CFPB), U.S. Securities and Exchange Commission's Office of Investor Education and Advocacy, and the Connecticut Department of Banking each have issued consumer advisories and alerts related to virtual currencies ([CFPB Advisory - August 11, 2014](#), [SEC Investor Alert - May 2014](#), and [DOB News Release - January 29, 2018](#)).

Bitcoin

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 C.F.R. § 1010.100\(m\)](#)).

The U.S. government does not recognize Bitcoin 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?

Bitcoin is 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 it to conduct a transaction. The public key 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 mid-January 2015, there were about 13.7 million Bitcoins in circulation ([July 15, 2014 CRS Report](#)). [Statistica](#) (a statistics portal) reported that total Bitcoins in circulation reached approximately 16.78 million in December 2017.

Users may also acquire Bitcoins in circulation by purchasing them or accepting them as gifts or payment for good or services. Users conduct Bitcoin transactions by sending digitally signed messages to the network. A message 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 the corresponding private key. All the Bitcoins 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 “blockchain.” The blockchain 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 blockchain (the public database) are “miners,” who are compensated with transaction fees and newly issued Bitcoins.

Blockchain is a form of distributed ledger technology (DLT), an [April 2017 GAO Report](#) to Congress explains how DLT works.

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 vice versa.

[Coin ATM Radar](#) reports that there are currently 1,531 Bitcoin ATMs in the United States, with the highest concentration in New York City (141) and Chicago (129).

Federal laws and Guidance on Bitcoins

Several federal agencies have issued guidance on how existing laws apply to virtual currency activities.

U.S. Treasury Department - FinCEN Guidance

FinCEN, under its authority to administer the Bank Secrecy Act (BSA), issued guidance in 2013 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. It also 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; and
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.” Consequently, a user is 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 ([31 C.F.R. § 1010.100\(ff\)\(5\)\(i\)\(A\)](#)).

Virtual Currency Administrators and Exchangers. FinCEN’s guidance provides that 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 “money transmitter” as a person that provides money transmission services, or any other person engaged in the transfer of funds ([31 C.F.R. §§ 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 C.F.R. § 1010.100\(ff\)\(1\)](#)).

U.S. Treasury Department - FinCEN Rulings

FinCEN released two administrative rulings in 2014 denying exemption from MSB regulations for two companies seeking to become involved in certain virtual currency activities. In both cases, FINCEN ruled that the companies qualified as money transmitters under the MSB regulations and therefore did not meet the criteria for exemption as payment processors ([FIN-2014-R011](#) and [FIN-2014-R012](#)). The cases involved establishing a convertible virtual currency trading and booking platform and a convertible virtual currency payment system, respectively.

Internal Revenue Service Guidelines

In 2014, the IRS issued [Notice IR-2014-36](#), stating that virtual currency should be treated as property for 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); and
4. payment made using virtual currency is subject to information reporting to the same extent as any other payment made using property.

Treasury Inspector General for Tax Administration (TIGTA) Audit

In 2016, TIGTA conducted an audit to evaluate the IRS's strategy for addressing income produced through virtual currencies.

TIGTA [found](#) that although the IRS issued its 2014 virtual currency guidance and established the Virtual Currency Issue Team (a group to research how virtual currencies may affect international taxable transactions), there has been little evidence of coordination to identify and address, on a program level, potential taxpayer noncompliance issues for transactions involving virtual currencies. TIGTA recommended that the IRS:

1. develop a coordinated virtual currency strategy that includes outcome goals, describes how the agency intends to achieve those goals, and provides an action plan with a timeline for implementation;
2. provide updated guidance on the necessary documentation requirements and tax treatments for the various uses of virtual currencies; and
3. revise third-party information reporting documents to identify the amounts of virtual currencies used in taxable transactions.

According to the audit report, the IRS agreed with these recommendations and plans to develop a virtual currency strategy, which includes assessing whether changes to information reporting documents are needed.

CRS Reports to Congress

On July 15, 2014, CRS issued a report to Congress discussing the benefits and concerns associated with the use of Bitcoins. CRS updated this report on December 2, 2015.

According to the reports, ([2014 Report](#) & [2015 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.

CRS concluded that Bitcoin also raises a number of legal and regulatory concerns, including its (1) potential for facilitating money laundering, (2) treatment under federal securities law, and (3) role in the regulation of foreign exchange trading. CRS assessed the applicability of selected federal laws to digital currency and reported that:

1. It is unclear whether the federal counterfeiting criminal statutes apply to digital currency ([18 U.S.C. §§ 470-477 & 485-489](#)).
2. It can be argued that the Stamp Duty Payments Act may not apply to digital currency ([18 U.S.C. § 336](#)).
3. The Electronic Fund Transfer Act does not appear to apply to digital currency because its transactions do not involve depository institutions, such as banks or credit unions.
4. It is possible that the Commodity Futures Trading Commission (CFTC) regulations apply to digital currency given, among other things, the regulations' definition of "commodity" ([7 U.S.C. § 1a\(9\)](#)). (Per the [2015 Report](#), on September 17, 2015, CFTC issued an order against an online platform for facilitating the trading of Bitcoin options contracts.)
5. Investing in Bitcoins may trigger SEC regulations because such investments could fall within the federal definition of "securities" ([15 U.S.C. § 77b](#)).
6. The U.S. District Court for the Western District of Missouri found in a 2014 case that the Federal Trade Commission Act ([15 U.S.C. §§ 41-58](#)), which prohibits unfair or deceptive acts or practices in or affecting commerce, was triggered by certain investments related to Bitcoin mining machines (*Federal Trade Commission v. BF Labs, Inc., et al.*, 2014 WL 11173797).
7. Regarding the Federal Election Campaign Act ([52 U.S.C. § 30101 et seq.](#)), in 2014, the Federal Election Commission voted unanimously to permit a nonconnected political committee to accept Bitcoin contributions and to purchase Bitcoins as an investment ([Advisory Opinion 2014-02](#)).

States' Attempts to Regulate Virtual Currency

As virtual currency increases in use, states are considering proposals to regulate or study it. For example, California, Connecticut, Florida, New York, and Washington have passed laws to regulate virtual currency-related activities. Illinois has regulatory guidance regarding digital currencies. And Hawaii had a legislative measure to establish a working group to study blockchains, but it failed.

California

In 2014, California amended its Corporations Code relating to business associations by allowing 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.

In the 2017-2018 session year, the California legislature introduced [Assembly Bill 1123](#), to prohibit a person from engaging in any virtual currency business in California without a licensed (commonly referred to as “BitLicense”) or being exempt from licensure. Under the bill, applicants for licensure, with some exceptions, would be required to, among other things, pay a nonrefundable \$5,000 fee to the California Commissioner of Business Oversight and an annual license renewal fee. The bill died in the Banking and Finance Committee.

Connecticut

The Connecticut legislature passed three laws relating to virtual currency, during the last three legislative sessions.

Two of these laws address the transmittal of virtual currency:

1. [PA 15-53](#), §§ 5-8, effective October 1, 2015, (a) requires a money transmitter license applicant to indicate whether the business will transmit virtual currency (such as Bitcoin) and (b) allows the banking commissioner to (i) deny a license if the proposed business model poses an undue risk of financial loss to consumers and (ii) place additional requirements on a license, including requiring different surety bond amounts than for other money transmitters.
2. [PA 17-233](#), § 20, effective October 1, 2017, requires licensed money transmitters engaged in receiving, transmitting, storing, or maintaining custody or control of virtual currency in Connecticut on behalf of someone else to hold, at all times, the same type and amount of virtual currency owed or obligated to that person.

The third act, [PA 16-145](#), effective October 1, 2016, addressed a fiduciary’s authority over digital assets, including virtual currency. It established the "Connecticut Revised Uniform Fiduciary Access to Digital Assets Act," which extends a fiduciary’s authority over a represented person’s tangible assets, including digital assets. The act specifies the conditions under which fiduciaries may access digital assets and establishes the processes they must follow to do so.

Florida

The Florida legislature recently enacted 2017 Fla. Sess. Law Serv. Ch. 2017-155 ([House Bill 1379](#)) which defines “virtual currency” as a medium of exchange in electronic or digital format that is not a coin or currency of the United States or any other country. The law specifies that virtual currency is a monetary instrument for purposes of the Florida Money Laundering Act ([Fla. Stat. ch. 896.101](#)).

Hawaii

In the 2017 session, the Hawaii legislature raised [House Bill 1481](#) to establish a working group with representation from the public and private sectors to examine, educate, and promote best practices for enabling blockchain technology to benefit local industries, residents, and the state. The bill died in the Ways and Means Committee.

Illinois

In 2017 the Illinois Department of Financial and Professional Regulation issued [regulatory guidance](#) regarding digital currencies. The guidance expresses the department's interpretation of Illinois' Transmitters of Money Act and its application to various activities involving digital currencies.

Among other things, the guidance provides that anyone engaged in the transmission of only digital currencies would not need to obtain a Transmitters of Money Act license. However, if the transmission of digital currencies involves money in a given transaction, that transaction may be considered money transmission depending on its organization. The department advises anyone engaging in a transaction involving both digital currency and money to contact it to determine whether a license is required.

New York

The New York State Department of Financial Services published final rules for virtual currency business activity ([23 NYCRR Part 200 Virtual Currencies](#)) in 2015.

Under these regulations, virtual currency is any type of digital unit used as a medium of exchange or a form of digitally stored value, including digital units of exchange that:

1. have a centralized repository or administrator,
2. are decentralized and have no centralized repository or administrator, or
3. may be created or obtained by computing or manufacturing effort.

The regulations generally require a new financial services license “BitLicense” for businesses handling virtual currency transactions. They provide the licensure requirements, including the application process and fees. Licensees must also maintain and enforce written compliance policies. The regulations also contain provisions on such things as consumer protection, anti-money laundering compliance, and cyber security rules for virtual currency companies.

Washington

The Washington legislature passed [Senate Bill 5031](#) in 2017 to address licensing and enforcement provisions applicable to money transmitters and currency exchanges under the state’s Uniform Money Services Act.

Among other things, it:

1. expands the definition of money transmission to include virtual currency;
2. defines virtual currency as a digital representation of value used as a medium of exchange, a unit of account, or a store of value;
3. requires the disclosure of certain information to consumers; and
4. requires online currency exchangers to maintain a surety bond.

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