

# Bitcoin, Blockchain & Initial Coin Offerings

A Global Review

November 2017

# Contents

- 1 Introduction
- 2 Countries and territories that have acted or are acting to regulate bitcoin
  - 2 Australia
  - 3 Canada
  - 4 Estonia
  - 5 European Union
  - 6 France
  - 6 Germany
  - 7 Gibraltar
  - 7 Isle Of Man
  - 8 Japan
  - 9 Jersey
  - 9 Luxembourg
  - 10 The Netherlands
  - 10 Singapore
  - 11 Switzerland
  - 12 USA
- 3 Countries that have banned bitcoin
  - 14 Bangladesh
  - 14 Bolivia
  - 14 Ecuador
  - 14 Iceland
  - 14 Kyrgyzstan
- 4 Countries that have stopped short of regulating bitcoin, but have imposed taxes
  - 15 Brazil
  - 15 Bulgaria
  - 16 Denmark
  - 16 Finland
  - 16 Italy
  - 17 Norway
  - 17 Slovenia
  - 17 Sweden
  - 18 United Kingdom

5	Countries that are undecided in respect of digital currencies  19 China 19 Colombia 19 Israel 20 Lithuania 20 Mexico 21 New Zealand 21 Philippines 21 Russia 22 South Africa 22 Spain 23 Taiwan 23 Ukraine 23 Vietnam
6	Countries that do not regulate bitcoin  24 Albania  24 Argentina  25 Belgium  26 Cyprus  27 United Arab Emirates  28 Greece  29 Hong Kong  20 India  21 Ireland  22 Ireland  23 Malaysia  24 Ronania  25 Romania  26 Portugal  27 Portugal  28 Portugal  29 South Korea  29 Thailand  30 Turkey  30 Venezuela
7	Guidance on digital currencies and distributed ledger technology

BTC/Blockchain funding rounds updates

8

# Introduction

### What is bitcoin?

Bitcoin is a type of digital currency in which encryption techniques are used to regulate the generation of units of currency and verify the transfer of funds, operating independently of a central bank.

Bitcoins are created by users who 'mine' them by lending computing power to verify other users' transactions.

Bitcoins are stored in a "digital wallet", which exists either in the cloud or on a user's computer. The wallet is a kind of virtual bank account that allows users to send or receive bitcoins, pay for goods or save their money. Unlike bank accounts, bitcoin wallets are not insured by the Financial Services Compensation Scheme in the UK or The Federal Deposit Insurance Corporation in the US.

Central to bitcoin is a public ledger, known as the blockchain. At inception, a new "block" was added to this chain or ledger every 10 minutes (although it can take over an hour today). This ledger records all of the transactions that have taken place, and what quantities of bitcoin are now held at different public addresses. Each public address has a corresponding private key. The holder of the private key has the authority to transfer the digital coins that are held at this private address. Private keys are 51 characters long in the same format as a public address. To spend an amount of bitcoin, you must use your private key to cryptographically sign the transaction, sending your bitcoin to another address. This message or transaction is then broadcast to the network, and the computers in the network begin working to record that the address no longer has the amount that was sent, but is now held at the receiving address. All of the computers that are working to write new blocks to the blockchain, are known as miners. These computers are all racing to solve a cryptographic puzzle, which is required to write the new block. The computer that solves the algorithm and writes the new block, receives an award of newly created bitcoin (now worth over \$7,000 each).

### What is the bitcoin blockchain?

Blockchain is the core technology behind bitcoin. It is a distributed, decentralised database and is designed to achieve consistent and reliable agreement over a record of events between independent participants. Participants in a blockchain network reach consensus about changes to the state of the shared database without needing to trust the integrity of any network participants or administrators. Anyone who participates in the blockchain network has their own data store that stores all of the transactions that ever happened on the network (this is also known as the distributed ledger).

Entries are stored within a cryptographic chain of blocks. At every stage, the network of participants must agree about the latest block of transactions. Agreement is reached through a process of majority consensus, eliminating duplicate entries annd double spending. This process and the cryptographic layering of the blocks makes the agreed blockchain irreversible and immutable. The 'history' of events within the blockchain cannot be modified by any one of the participants without majority consensus from the group. This is vitally important to prevent the 'double-spending' problem (i.e. the same digital file being copied and transferred multiple times) without requiring a centralised ledger or third party that prevents users from duplicating/spending the same digital file twice. Blockchains can thus facilitate the transfer of assets and other data without needing a trusted central authority.

The ability of blockchain network participants to independently verify the integrity of the shared database without having to rely on a trusted third party is one of the main value propositions of using the blockchain. Blockchains hold the promise of reducing the trust gap by making actions within the system independently verifiable by each participant, improving accountability, and dis-incentivising misbehaviour through public auditability. In other words, the rules governing a blockchain can effectively eliminate the types of unauthorised transfers or fraudulent activity that have become all too common in many areas of business and society.



# Countries and territories that have acted or are acting to regulate bitcoin

# Australia



### **Bitcoin and ICO Regulation/status**

On 28 September 2017, the Australian Securities and Investments Commission issued new guidance for initial coin offerings ('ICO') issuers, warning consumers that they must understand the potential risks and be wary of scams.

The current rules in 2017 of the Australian Taxation Office attribute to bitcoin the status of "intangible assets" rather than money making it subject to goods-and-services tax ('GST'). Bitcoin businesses also can be liable for the tax if they receive payments in bitcoin. However, bitcoin has been treated as "money" in Australia since July 1, 2017, and is now exempt from GST. Bitcoin traders and investors are currently not being taxed for purchasing and selling bitcoin through regulated exchanges and trading platforms.

Two major factors which drove start-ups, exchanges and businesses dealing with bitcoin and other digital currencies in Australia away from the country were the termination of banking services for bitcoin by leading Australian banks due to their anti-competitive nature and the double taxation of bitcoin trading by the Australian government.

According to a <u>press release</u> issued by the Australian Government, "the Government will make it easier for new innovative digital currency businesses to operate in Australia. From 1 July 2017, purchases of digital currency will no longer be subject to GST, allowing digital currencies to be treated just like money for GST purposes. Currently, consumers who use digital currencies can effectively bear GST twice: once on the purchase of the digital currency and once again on its use in exchange for other goods and services subject to the GST."

# Blockchain Technology Application/ Innovation

On 22 January 2017, the Australian Securities Exchange ('ASX') announced it had enlisted Digital Asset Holdings to develop a new system for clearing and settling trades in the Australian equity market. Blockchain will replace the legacy Clearing House Electronic Subregister System platform as a more efficient mechanism. In September 2016, the ASX completed a prototype post-trade solution using blockchain technology, and is looking to make a final decision on whether to implement it at the end of 2017.

# Canada

### **Bitcoin Regulation/status**

Bitcoin is regulated under the anti-money laundering and counter-terrorist financing laws in Canada and there are requirements for operating as a bitcoin exchange. In Canada, there are only two registrations required. One for Quebec and one for the remainder of the country.

Canada taxes bitcoins in two ways. Transactions made for goods or services will be treated under its barter transaction rules, while its "Transactions in Securities" document says that profits made on commodity transactions could be income or capital.

Regional police in Canada have issued a warning to local residents about fraudulent investment schemes involving bitcoin.

In October 2013, Robocoin and Bitcoiniacs launched the world's first-ever bitcoin ATM in Vancouver. Located in a downtown coffee shop, this ATM enabled users to sell and purchase bitcoin with ease, just like more traditional currencies. This was a particularly large step for Canada regarding the adoption of FinTech. The ATM had to comply with Canadian laws and used palm prints, photographs and ID as verification before allowing customers to withdraw or deposit.

The major problem for Canadians running a bitcoin exchange is banking regulations. As a result, Kraken, Coinsetter/Virtex, and Coinbase do not operate in Canada.

None of the big 5 Canadian banks will accept a bitcoin exchange.

There are no bitcoin companies in Canada with big 5 bank accounts.

There are no clear regulations for bitcoin businesses in Canada.

Banks seem to have little interest in using the bitcoin blockchain. They are focused on creating their own private blockchains for alternative use-cases.

# Blockchain Technology Application/ Innovation

Canada's central bank, the Bank of Canada, and five other Canadian banks are experimenting with blockchain technology and a possible digital dollar as the growing demand for digital fintech payment systems puts the squeeze on the traditional banking sector.

The big Canadian banks are also members of the R3 Consortium, which is working with over 75 member banks worldwide, developing the standard for blockchain technologies for banks.

The Canadian Money Service Business Association, representing more than 800 money service businesses, is petitioning the federal Government's Financial Transactions and Reports Analysis Centre of Canada, the agency responsible for regulating fintech, to clearly define money services businesses to include digital currencies businesses.

### **Views**

The industry view is that the application for blockchain as a verifiable, incorruptible ledger could prove to be a key feature in checking for and preventing financial crimes.



# Estonia

# Bitcoin and ICO Regulation/status/

In August 2017, it was announced that Estonia will be issuing its own virtual currency, "Estcoin" through an Initial Coin Offering ('ICO') with the help of Ethereum founder Vitalik Buterin.

In April 2016, the Estonian court decided to apply extra regulation to bitcoin trading that does not apply to other economic activities. This includes the requirement to meet customers in person (face to face), as well as the requirement keep identification of all customers and report those who trade more than 1,000 Euros or more per month. No other financial activity is subject to such strict requirements. The normal reporting limit is 15,000 Euros not 1,000 Euros. Estonia is the only EU country to apply such strict requirements to bitcoin. Most other EU countries treat bitcoin like other economic activities and do not impose extra regulation.

The ruling applies to bitcoin and to all blockchain tokens and assets that can be exchanged for fiat currency.

# Blockchain Technology Application/ Innovation

Estonia has been actively perusing the possibilities afforded by blockchain for several years and has positioned itself as a global leader in e-government.

Estonia has a tech-friendly Government that seems willing to implement innovations like blockchain technology for healthcare, banking services and even governance by allowing its citizens to become "e-Residents." This service gives Estonian citizens and businesses digital authentication. In January 2017, it was also one of the first to use a blockchain-based e-voting service that enables people to become shareholders of Nasdaq's Tallinn Stock Exchange.

It now hosts a number of bitcoin ATMs and start-ups such as Paxful, a global peer-to-peer buying and selling service for bitcoins. With one of the highest internet penetration rates in the world, Estonia is well positioned to be a place where cryptocurrency users can certainly feel welcome.





# **European Union**

### **Bitcoin Regulation/status/views**

The latest directive for preventing money laundering and terrorism financing introduced significant regulatory authority over the usage of digital currencies like bitcoin. Members of the European Parliament ('MEPs') have decided to extend the scope of the 4th Money Laundering Directive ('MLD4') to include digital currencies. The original draft of MLD4, published in May 2015, did not include any mention or coverage of digital currencies. Furthermore, beneficial owners of business entities will be more closely watched for tax evasion purposes and would be subject to severe noncompliance penalties and fines.

On 5 July 2016, the European Commission (**'EC'**) published the legislative proposal it adopted to amend MLD4 as part of its action plan to strengthen the fight against terrorist financing. The amended MLD4 includes bringing digital currency exchange platforms and custodian wallet providers within the scope of AML and CTF regulation so that they are required to perform customer due diligence and report suspicious transactions. The transposition date and entry into force of MLD4 was 26 June 2017.

Prompted by the terrorist attacks in France in 2015, the EC published an Action Plan to strengthen the fight against the financing of terrorism on February 2016. As part of this, the EC proposed to re-open particular aspects of MLD4, in order to address vulnerabilities in Europe's fight against terrorist financing, particularly concerning the anonymity associated with the purchase and use of digital currencies.

The EU, as a whole, supports the use of cryptocurrencies. However, attitudes in relation to regulation vary across the Member States. The European Parliament is the directly elected legislative body of the EU.

In the Presidency Compromise text revising the MLD4 published on 14 November 2016 there was a proposition that allows all member States to create a register for crypto account holders to register their accounts and be verified; namely:

"(7) The anonymity of virtual currencies allows their potential misuse for criminal purposes. The inclusion of providers engaged in exchange services between virtual currencies and fiat currencies and custodian wallet providers will not entirely address the issue of anonymity attached to virtual currency transactions, as a large part of the virtual currency environment will remain anonymous because users can also transact without these providers. To combat the risks related to the anonymity, national Financial Intelligence Units (FIUs) should be able to obtain information allowing to associate virtual currency addresses to the identity of the owner of virtual currencies. In addition, the possibility to allow users to self-declare to designated authorities on a voluntary basis should be further assessed."

# France

### **Bitcoin Regulation/status**

In April 2016, the French Central Bank published a research report on financial stability in the digital age and described bitcoin and cryptocurrencies as a "parallel mechanism of money creation".

Bitcoin exchange services operating in France must have an agreement from the central bank, or work with a registered company for holding funds.

France are optimistic about the number of opportunities bitcoin may offer. Without ignoring the risks related to its "volatility, its anonymity and its lack of legal guarantee", it underlines the possible uses of the currency as a "payment system and ... a decentralised validation protocol".

# Blockchain Technology Application/ Innovation

The French Central Bank report also mentions the use of decentralised exchange systems that will be made possible through blockchain technologies. Blockchain technologies have been touted by many banks and financial institutions as providing a revolutionary way to redesign a lot of back-office industry. The report highlights some uses like collateral management that can see immediate gains with the adoption of blockchains.

The report recommends that regulators should be ready to adapt their regulatory frameworks for the financial markets and institutions. The regulators need to ensure that all the market participants and actors are in compliance with the existing rules. In addition, the regulators need to ensure that blockchain technology and its wider adoption does not create any new systemic risks in the system. However, the report recommends that the regulators should also ensure that the market retains trust in the new protocols that will invariably be adopted.

# Germany

### **Bitcoin Regulation/status**

Germany is concerned over the use of cryptocurrencies for illegal activities and terrorism financing. Germany paid the EU Council for "improved regulation and control" of anonymous payment products such as prepaid cards and digital payment systems, particularly bitcoin and Ripple. These requests have been successfully heard by the European Union which have published an amended Fourth Money Laundering Directive discussed in the European Union section above.

In Germany, bitcoins are regarded as legally binding financial instruments that fall into the category of units of account, which are not classified as foreign currency but as 'private money'.

Germany declared bitcoin exempt from VAT in 2015. Bitcoin is labelled as "private money" and a "complementary currency".

Germany's plans are to regulate and tax the digital token as a commodity.

Germany is one of the most advanced countries when it comes to regulating bitcoin and digital currencies. Although some issues remain unresolved, the German Government exempted bitcoin transactions held for over one year from 25% capital gains tax.

Bitcoin is recognised as private money, as a "unit of account" by the German Finance Ministry, meaning it can be used for tax and trading purposes.

### Blockchain Technology Application/ Innovation

According to German Bank, Deutsche Bank, several financial institutions have already established what are known as innovation labs that deal exclusively with all the technology involved in the blockchain. However, stock exchanges, credit card firms, clearing houses and insurers are also increasingly focusing on the technology and analysing the potential of the P2P movement for their own purposes.

### **Views**

The research further explicates the impact of blockchain technology on intermediaries and third party operators, since a successful implementation of the technology could threaten their existence and eliminate them once and for all.

# Gibraltar

# Blockchain Technology Application/ Innovation

On 13 October 2017, the Gibraltar Government published draft legislation, <u>Financial Services</u> (<u>Distributed Ledger Technology Providers</u>). <u>Regulations 2017</u> that will place Gibraltar at the forefront of regulation in the technology-driven sector of the global financial services industry.

In May 2017, HM Government of Gibraltar confirmed at a summit held at the University of Gibraltar that it would publish for public consultation "Regulating FinTech; Proposals for a Distributed Ledger Technology (DLT) Regulatory Framework".



# Isle of Man

### **Bitcoin Regulation/status**

In May 2016, CoinCorner a bitcoin exchange and wallet provider was one of two bitcoin businesses to be awarded Designated Business status by the Isle of Man Financial Services Authority (IOMFSA) following the introduction of The Designated Businesses (Registration and Oversight) Act. The Act came into force in October 2015 after a proposal was put forward to place responsibility on the IOMFSA for the oversight of the adherence of certain businesses and professions to the Island's anti-money laundering and countering the financing of terrorism legislation.

Designated Businesses now also include those in "the business of issuing, transmitting, transferring, providing safe custody or storage of, administering, managing, lending, buying, selling, exchanging or otherwise trading or intermediating convertible digital currencies, including crypto-currencies or similar concepts where the concept is accepted by persons as a means of payment for goods or services, a unit of account, a store of value or a commodity."

# Blockchain Technology Application/ Innovation

The Isle of Man Government is researching and developing blockchain technology to create synergy with the Internet of Things (IoT) concepts.

Former blockchain specialist 'Credits' was following a tradition of testing new technologies on the Isle of Man with a know your customer (KYC) application which leverages the jurisdiction's financial services pedigree. The Credits blockchain is a hybrid, combining public ledger elements and some private ledger elements, again facilitated by testing on the Isle of Man.



# Japan

### **Bitcoin Regulation/status**

On 17 September 2017, it was announced that a number of Japanese banks, including Mizuho Financial Group and Japan Post Bank, have joined forces to launch a new digital currency called J Coin which will be pegged to the Yen, to be issued by 2020 Olympic Games held in Tokyo. Whether the banks retain any control over the token after it is issued is unclear at the time of writing. The incentive of banks is the vast amount of consumer data they would collect showing payment patterns and the flow of funds. J Coin is intended to reduce the Japanese dependency on cash, which accounts for 70 per cent of all transactions by value in Japan.

Japan's Government have been working on a bill to amend its Banking Act, accounting for changes to the economy stemming from the growth of telecommunications technologies.

On 1 July 2017, Japan's tax reform bill eliminated consumption tax on the sale of bitcoin.

On 1 April 2017, Japan implemented a new law which categorises bitcoin as a legal payment option within the country. Bitcoin exchanges will also come under additional regulatory scrutiny. The recognition of cryptocurrency in Japan as a legal tender also means the applicability of regulations governing banks and financial institutions to cryptocurrency exchange platforms. They will be required to comply with strict anti-money laundering (AML) and Know Your Customer (KYC) requirements, along with annual audits. Other requirements include meeting the stated capital and cyber security requirements to ensure consumer protection.

The amended Payment Services Act, which is part of the Banking Act, defines a digital currency as "property of value". Furthermore, the Japanese Government does not believe 'digital currency' is the same as 'electronic money' because the former has no issuers and is usable by any accepting individual, whereas the latter has a specific issuer and is only usable by the issuer or authorized persons.

The Accounting Standards Board of Japan announced that it has started working on creating an accounting framework for both user and businesses dealing with cryptocurrencies.

Profits from bitcoin trading can be considered "income from business activities or miscellaneous income." The asset-like nature of bitcoin means that it is also subject to capital gains tax in Japan. However, the purchase and sale of bitcoins and other digital currencies will no longer be subject to Japan's 8 percent consumption tax, starting from July 1. Taxation of virtual currencies is undergoing many developments in Japan and new accounting standards detailing the treatment of digital currencies for tax purposes are anticipated in the near future.

The new developments are expected to drive the cryptocurrency usage in Japan to over \$9 billion in the next three years (2020).

# Jersey

# **Bitcoin Regulation/status/views**

In December 2016, the Channel Islands Securities Exchange announced that it had listed its first regulated bitcoin fund listing, the Jersey's Global Advisors Investment Fund plc.

In September 2016, the Jersey State Assembly published a Government order that exempts digital currency exchanges from registration requirements if their annual turnover is less than £150,000. For those who go over that annual amount will be required to notify the Jersey Government within three months or face potential sanction.

# Luxembourg

### **Bitcoin Regulation/status/views**

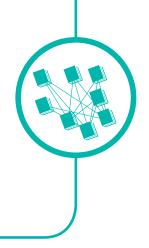
Bitcoin exchanges in Luxembourg must be fully regulated by the Luxembourg financial regulator to operate.

In April 2016, Luxembourg granted a license to bitcoin exchange Bitstamp making it Europe's first fully regulated payment institution for the cryptocurrency with the aim of making bitcoin exchange safer.

# **Blockchain Technology Application/ Innovation**

LuxTrust, together with a Massachusetts-based startup, Cambridge Blockchain and the support of the Luxembourg government, is building a new blockchain ID platform. In February 2017, the Cambridge Blockchain company raised \$2m in a funding round, receiving support by VC firms Partech Ventures and Digital Currency Group.

One of the reasons for the creation of the blockchain ID platform is the data-centric EU General Data Protection Regulation) that is due to come into force mid-2018.



# The Netherlands

# **Bitcoin Regulation/status/views**

The Netherlands views bitcoin as a medium of exchange, since it seeks to provide a solution to the exchange of goods and services in daily life; however, bitcoin trade is not regulated or monitored by the Dutch financial authorities.

The Dutch authorities are considering taking measures, however, to curb money laundering and illicit practices using bitcoin.

In January 2016, Dutch police arrested 10 people in the Netherlands as part of an international investigation into money-laundering through large transfers of bitcoin.

# Blockchain Technology Application/ Innovation

The Dutch Central Bank is supporting the creation of a 'blockchain development campus' for banks, which opened in September 2016, to congregate and share knowledge on the application of distributed ledger technology in the financial services arena.

The Dutch Central Bank has been studying its own prototype cryptocurrency for at least two years, the most prominent being DNB Coin, and revealed testing of three different versions in June 2016.

# Singapore

# **Bitcoin Regulation/status**

On 15 November 2017, the Monetary Authority of Singapore ('MAS') released a "Guide to Digital Token Offerings", providing general guidance on the application of the securities laws administered by MAS in relation to offers or issues of digital tokens in Singapore. On 1 August 2017, MAS confirmed that if a digital token constitutes a product regulated under MAS securities laws, the offer or issue of digital tokens must also comply with these laws.

Singapore's central bank and the Association of Supervisors of Banks of the Americas ('ASBA') are coming together to strengthen FinTech ties between Singapore and the Americas. MAS and the central bank entered into a Memorandum of Understanding ('MoU') with the ASBA, an organization that supervises and promotes banking practices in America with the aim to keep them up to international standards. The MoU establishes a framework between the two authorities in their mutual interests in financial technologies.

Earlier in 2017, the Singapore's central bank announced the completion of an early phase of its proof-of-concept interbank payments blockchain. More recently, details emerged that this blockchain was powered by a central bank-developed digital currency using Ethereum's blockchain technology.

Bitcoin will be treated not as a currency, but as either a good or an asset. As a good it would be subject to GST (VAT or sales tax) when traded to and from local currency by Singapore-resident businesses and goods purchased with bitcoin would also be subject to sales tax. However, as an investment asset, bitcoin would not be taxed as Singapore does not have a capital gains tax.

### **Views**

In Singapore, cryptocurrency is gaining steam. Being a global financial hub, Singapore provides a safe haven for investors to invest their funds. One of the world's most renowned cryptocurrency wallet and bitcoin exchanges, Coinbase is expanding to Singapore. It has currently more than 15,000 customers in Singapore. Singapore also houses other cryptocurrency companies such as BitX, CoinPip, Coin Supermarket, and Tembusu System.

A key driver of cryptocurrency in Singapore is their strong legal and judicial system. It creates a conducive business climate with regulations in place to protect various stakeholders. The Government is also working towards developing a strong regulatory framework within FinTech itself. Recently, MAS set up a new FinTech and Innovation group ('FTIG'). FTIG will formulate and develop regulatory policies and development strategies. This is to facilitate technology and innovation usage, allowing better risk management, enhanced efficiency, and increase competitiveness in the financial sector.





### **Bitcoin Regulation/status**

Bitcoin businesses in Switzerland are subject to anti-money laundering regulations and, in some instances, may need to obtain a banking license.

In 2016, the Swiss town Zug added bitcoin as a means of paying city fees, to advance Zug as a region that is advancing future technologies. Swiss Federal Railways, the government-owned railway company of Switzerland, sells bitcoins at its ticket machines.

### **ICOs**

The Swiss federal, cantonal and municipal authorities, as well as FINMA, Swiss Financial Market Supervisory Authority, are very open to crypto-finance and crowd funding and, consequently, Switzerland has one of the most developed regulatory frameworks for performing an ICO.

Zug is considered as the Crypto Valley because of its many crypto-asset-related companies and its favourable legislation for ICO.

According to a press release, on 22 August 2017, Falcon Private Bank, in cooperation with Bitcoin Suisse AG, enhanced its blockchain asset management services by adding Ether, Litecoin, and Bitcoin Cash, becoming the first bank worldwide to offer high net worth and institutional clients direct exposure to what is now a whole range of the top market cap crypto-assets, besides bitcoin.

CEO of Bitcoin Suisse AG Niklas Nikolajsen said, "Bitcoin Suisse is proud to continue to support Falcon Private Banks product offering in the field of crypto-assets. Falcon Private Bank was the first bank to offer bitcoin directly to its clients, and thus created history. Their decision to follow up by adding Ether as well as other crypto-assets has made them the go-to private bank for crypto-asset holders and investors."



# USA

### **Bitcoin and ICO Regulation status**

On 25 July 2017, the U.S. Securities and Exchange Commission declared that because certain species of ICO tokens were marketed with the promise of profits, they are behaving like securities. The Howey test was used, which is a longstanding mechanism used by the Supreme Court and the SEC to define whether an instrument is a security or not. The SEC indicated that Ethereum, another cryptocurrency, is a currency, for example, not a security. The Howey test asks if an instrument represents: (1) the investment of money; (2) from an expectation of profits; (3) arising from a common enterprise; (4) depending solely on the efforts of a promoter or third party.

In March 2017, the SEC denied a request to list what would have been the first U.S. exchange-traded fund built to track bitcoin, the digital currency. Investors Cameron and Tyler Winklevoss have been trying for more than three years to convince the SEC to let it bring the bitcoin ETF to the market.

In January 2015, the first regulated US bitcoin exchange, Coinbase, opened. The exchange is licensed to do business in 25 states — including New York and California. While accounts at Coinbase and other bitcoin exchanges are not backed by any Government of the Federal Deposit Insurance Corp., Coinbase has insurance, which should offer traders some assurance against loss.

There are two legislative levels – federal and state. On the federal level, FinCEN (Financial Crimes Enforcement Network) is the main authority to look up to.

According to FinCEN, every business dealing with cryptocurrencies, should have an MSB status (money service business). It is the necessary condition for any exchange or a payment processor to operate legally on the US territory. This status means that a company complies with AML and KYC policies, so that the risks of illegal activities are reduced to the minimum. AML and KYC are also partly covered by the Patriot Act that was signed in 2001 to prevent terrorism.

There is a different picture in every State. The authorities' attitude towards bitcoin varies significantly, especially when it concerns the Money Transmitter License – every State has its own requirements for obtaining it. There are currently 3 States, in which businesses that operate digital currencies do not need an MTL for sure: Montana, South Carolina, and New Mexico. Others either require businesses

(exchanges and payment processors) to be registered as money transmitters or do not have a definite view on this matter.

New York – New York is the only State to have comprehensive regulations aimed specifically at digital currency. These rules were adopted by the New York Department of Financial Services ('NYDFS') in June 2015. Under the rules, a license is required to engage in any Digital Currency Business Activity, defined as any of the following activities involving New York or a New York resident:

- (a) Receiving digital currency for transmission or transmitting digital currency, except where the transaction is undertaken for non-financial purposes and does not involve the transfer of more than a nominal amount of digital currency;
- (b) Storing, holding or maintaining custody or control of digital currency on behalf of others;
- (c) Buying and selling digital currency as a customer business;
- (d) Performing exchange services as a customer business;
- (e) Controlling, administering or issuing a digital currency.
- (f) Transmission is "the transfer, by and through a third party, of digital currency from a person to a person..."
- (g) A licensee is subject to quarterly and annual reporting requirements, disclosure requirements and extensive AML and cybersecurity requirements. Licensees are required to "maintain at all times such capital in an amount and form as the superintendent determines is sufficient to ensure the financial integrity of the Licensee and its ongoing operations based on an assessment of the specific risks applicable to each Licensee" as well as a surety bond or trust account.
- (h) The regulations avoid the permissible investments problem identified above, however, by permitting licensees to meet the capital requirement with "cash, digital currency, or high-quality, highly liquid investment-grade assets, in such proportions as are acceptable to the superintendent."
- (i) These rules have been heavily criticised for imposing onerous conditions on bitcoin operators, and making it difficult for small companies or startups to operate in the space. Even more critical is the fact that, if extended to other blockchain-based applications, similar regulatory approaches could have the effect of seriously slowing down innovation in the blockchain space.



(j) In September 2015, NYDFS announced it had issued its first BitLicense to Circle Internet Financial and had received 25 BitLicense applications to date. The NYDFS has also granted a charter to Gemini Trust Company, LLC (Gemini), a bitcoin exchange founded by twin entrepreneur-investors Cameron and Tyler Winklevoss. Gemini is the second digital currency company to receive a charter under the New York Banking Law, and is in full compliance with NYDFS's recently finalised BitLicense rules.

**Connecticut** – In June 2015, Connecticut state amended its Money Transmission Act to address digital currency. The new legislation requires a money transmitter applicant to specify in its application whether its money transmission activities "will include the transmission of monetary value in the form of digital currency".

The legislation allows the commissioner discretion to deny a money transmitter application if the applicant intends "to engage in the business of transmitting monetary value in the form of digital currency" and it presents undue risk to consumers. Alternatively, the commissioner may impose additional requirements, restrictions or conditions on such an applicant. The legislation also requires such applicants to hold a surety bond in an amount determined by the commissioner. The Connecticut Money Transmission Act grants the commissioner authority to approve the use of "other investments" to meet the permissible investment requirement.

Florida – In July 2016, the Circuit Court of the Eleventh Judicial Circuit in and for Miami-Dade County determined that bitcoin is not a "payment instrument," which is defined under the state statute to mean "a check, draft, warrant, money order, travelers check, electronic instrument, or other instrument, payment of money, or monetary value whether or not negotiable." Further the Court confirmed that in its view, "it is very clear, even to someone with limited knowledge in the area, that bitcoin has a long way to go before it is the equivalent of money".

North Carolina – In July 2016, the North Carolina Gov. Pat McCrory signed a law that defines "virtual currency" and clarifies what activity triggers licensure. Virtual currency miners and blockchain software providers will not require a license for multi-signature software, smart contract platforms, smart property, colored coins, and non-hosted, non-custodial wallets.

California – According to a report dated August 2016, the state of California is moving forward with legislation that would update its money transmitter rules to capture businesses engaged in digital currency activities. Most notably, the bill no longer proposes to license businesses engaged in financial applications of the technology, but would instead create a new Digital Currency Business Enrollment Program. Lasting five years, the proposed program appears focused on helping the state learn more about the emerging technology. In addition, there is a continuing cost of \$2,500 annually, and the text proposes giving the program commissioner the authority to impose "a claim for civil penalties" of up to \$25,000. The bill states that, companies that store, transmit, exchange or issue digital currency qualify as digital currency businesses and would be required to pay a non-refundable \$5,000 fee to participate in the program, a cost equal to the New York BitLicense application fee.

# Blockchain Technology Application/ Innovation

The Chamber of Digital Commerce and Coin Center have established a forum, called the Blockchain Alliance, to help combat criminal activity involving bitcoin and the blockchain. The organisation is comprised of a coalition of companies and other institutions that have come together to address public safety concerns about digital currencies and the blockchain.

Industry participants include the Chamber of Digital Commerce, Coin Center, MIT Media Lab's Digital Currency Initiative, bitcoin core developer Gavin Andresen, BitFinex, BitFury, BitGo, Bitnet, BitPay, BitStamp, Blockchain, Bloq, Circle, CoinBase, CoinX, ItBit, Kraken, Noble Markets, and Xapo

The Blockchain Alliance will liaise with the US Department of Justice, including the FBI and the U.S. Marshals Service, the U.S. Secret Service, Immigration and Customs Enforcement Homeland Security Investigations, and the Commodity Futures Trading Commission. The forum plans to engage with other U.S. and foreign agencies as well.

### Views

There has been a mixed reception in the bitcoin sector to the Blockchain Alliance's establishment. Many bitcoin enthusiasts see the organisation as a means of Government manipulation or control.

### Countries that have banned bitcoin

# Bangladesh

### Regulation/status/views

Bangladesh's central bank has warned against dealing in bitcoin, saying anybody caught using the digital currency could be jailed under the country's strict anti-money laundering laws.

The Bangladesh Bank, which regulates the country's banking industry, said it issued the order after reports in local media of bitcoin transactions through various online exchange platforms.

Trading in bitcoin and other digital currencies could lead to a punishment of up to 12 years in prison.

# Bolivia

# **Bitcoin Regulation/status/views**

The Bolivian Government banned the use of bitcoin in the belief that it will allow tax evasion and monetary instability.

El Banco Central de Bolivia, the central bank of the South American nation, officially banned any currency or coins not issued or regulated by the Government, including bitcoin and a list of other cryptocurrencies including namecoin, peercoin, Quark, primecoin and feathercoin.

# **Ecuador**

# **Bitcoin Regulation/status/views**

The Ecuadorian Government banned all bitcoin use in the hope of promulgating their own digital currency based on the principles of bitcoin (2016).

In July 2014, the National Assembly of Ecuador effectively banned bitcoin and other decentralised digital currencies while, in a novel move, establishing guidelines for the creation of a new, state-run currency. The law gives the Government permission to make payments in 'electronic money', but digital currencies like bitcoin are prohibited.

# **Iceland**

### **Bitcoin Regulation/status/views**

Since 2009, Iceland has instigated a ban on bitcoin and other digital currencies due to capital controls resulting from the banking crisis of 2008. According to existing legislation, Icelandic national currency cannot leave the boundaries of the country. This rule contradicts the universal nature of bitcoin which is transferrable.

Personal ownership does not seem to be an issue, rather buying (importing) bitcoins from outside the country is illegal because it constitutes a movement of capital out of the country. Furthermore, selling products or services for crypto-currencies is also prohibited.

The locally created digital currency auroracoin recently made headlines with its 'Airdrop' to all Icelandic citizens and is not illegal due to its provenance within the country.

# Kyrgyzstan

### **Bitcoin Regulation/status/views**

The National Bank of the Kyrgyz Republic, the central bank of the Central Asian nation, has said that the use of bitcoin and other digital currencies as a form of payment is currently illegal under national law. Issued in July 2015, the notice states that the only legal tender in Kyrgyzstan is the national currency, the som, and that as such, any use of bitcoin for payment violates this policy.



Countries that have stopped short of regulating bitcoin, but have imposed taxes

# Brazil

### **Bitcoin Regulation/status/views**

On 16 October 2017, it was reported that the Brazilian central bank president Ilan Goldfajn criticised bitcoin condemning the rally of 750% since 2016 as a bubble. "The bitcoin is a financial asset with no ballast that people buy because they believe it will appreciate. That is a typical bubble or pyramid [scheme]," Goldfajn said, adding that the bitcoin facilitates illegal payments over the internet. "The [Brazilian] central bank is not interested in bubbles or illicit payments," he said, stressing that it is relevant to "separate" innovations and technology companies from this type of practice facilitated by bitcoins. He believes that the digital currency "is not something the central bank would like to encourage."

Brazilian regulators confirmed they will not regulate bitcoin because the technology is still in its early stages and does not represent a risk to the financial system (2016). However, bitcoin should be declared and subject to income tax.

The Brazilian Government declared that bitcoin is not a currency but an asset and therefore subject to 15% capital gains taxes above the threshold (2016).

The Brazilian bitcoin exchange is FoxBit. FoxBit is a result of a partnership between FoxBit Serviços Digitais and BlinkTrade Inc, a technology provider for bitcoin exchanges around the world.

# Bulgaria

### **Bitcoin Regulation/status**

In 2014, the Bulgarian tax service indicated that income from the sale of digital currencies such as bitcoin will be treated as income from the sale of financial assets and taxed at a rate of 10%. There have since been no further updates.

Bulgaria announced, in 2014, that bitcoin trading would be subject to ordinary income and corporate income tax rates, but did not issue regulations requiring gains to be documented or reported, raising the issue of potential money laundering through digital currencies.

### **Views**

Vladislav Dramaliev, co-founder of Bulgaria's first bitcoin exchange:

"So far Bulgarian institutions have not really expressed official interest in bitcoin, apart from announcing that bitcoin should be considered a financial asset and all capital gains are subject to a 10% tax. Bulgarian banks are also either oblivious to the existence of bitcoin or are not against using their services for bitcoin-related deals. I have not heard of a local bank that has denied access to its services due to identified bitcoin affiliation,". (2016)



# Denmark

### **Bitcoin Regulation/status**

Denmark is at the forefront of the push towards eliminating cash in favour of 100% digital currency.

The Danish Central Bank declared bitcoin not a currency, stating that it will not regulate its use in the country. Denmark is home to a number of bitcoin startups and exchanges such as CCEDK, which has been a prolific innovator in the crypto-space with recent releases of bitcoin "3.0" technology and decentralized exchange.

The nation's stance on the taxation of bitcoin for general transactions is considered a private asset and any gains are tax exempt; similarly, losses are not deductible. However, for companies whose sole business is related to trading or speculating in digital currencies, gains will be taxed. Whether bitcoin will be used as a means of exchange or an alternative to the central banking monopoly or both, remains to be seen.

# Blockchain Technology Application/ Innovation

In December 2016, the Central Bank of Denmark announced their plans of embracing a national digital currency and plan to use blockchain technology to achieve this goal.

It remains unclear if the Danish central bank will create a proprietary distributed ledger to do so, or use an existing solution to facilitate this project. It appears they are working on their own solution, though, but no official announcement has been made regarding this decision.



# **Finland**

### **Bitcoin Regulation/status**

The Finnish Government is very relaxed about bitcoin and as far as regulation is concerned, there are no special rules for handling bitcoin. Also, no banking license is required and there are no KYC rules. Profits from bitcoin are, however, fully taxable and most bitcoin users in Finland voluntarily declare their bitcoin profits in their tax declaration.

From a psychological point of view, bitcoin is approached from the technological side or intellectual side and not so much used to solve actual day-to-day problems.

Finland was the most cashless society in 2016 with an average of 450 million non-cash payments made in Finland. Perhaps digital currency uptake here will be faster than in other jurisdictions.

Finland and all Nordic Countries are well known for big Government, high state quotas, and high taxes. People love the state and people even love to pay taxes. Corruption is a bit lower than in other parts of the world. There is no real cash economy and even small purchases are paid with credit card.

# Italy

# **Bitcoin Regulation/status/views**

In September 2016, Italy's tax authority, released a publication that came months after an EU court ruling regarding how value-added tax (VAT) would apply to transactions executed using the technology.

Italian tax officials are applying income tax to speculative uses of bitcoin, or events in which money is made during a sale or purchase. Those buying bitcoins outside of the scope of speculative activity are not required to pay income tax.

Italy's tax authority appears to be treating bitcoin as a form of currency, a move that is the latest turn regarding bitcoin taxation worldwide.

# Norway

### **Bitcoin Regulation/status/views**

Norway does not regulate bitcoin.

Since November 2016, Norwegians can buy bitcoin directly through Vipps Payment Application. Vipps is one of the widely-used payments applications in the country. The platform operated by DNB ASA, Norway's largest financial services group, allows people to pay for their bitcoin purchase on bitcoins Norway cryptocurrency exchange.

The Norwegian government stated, in February 2017, that they would not levy VAT on the purchase or sale of bitcoin.

The Norwegian Government instead decreed bitcoin to be an asset upon which capital gains tax can be charged. Furthermore, profits from bitcoin will fall under the wealth tax, and losses can be deducted. There will be a 25 percent sales tax for businesses engaging in bitcoin trade.

# Slovenia

### **Bitcoin Regulation/status/views**

Slovenia is one of the more permissive Governments towards digital currency use.

In April 2016, Slovenia-based bitcoin exchange, BitStamp, became the world's first-ever digital currency firm to have obtained a European payments institution license, thereby enabling consumers to trade bitcoin against the fiat currencies across all the 28 European countries.

The country's Tax Administration and Ministry of Finance have said that bitcoin is subject to income tax like any other non-monetary income, and would be calculated based on the bitcoin-Euro exchange rate at the time of transacting.

Selling bitcoin would not be subjected to capital gains tax.



# Sweden

### **Bitcoin Regulation/status**

Swedish financial regulator Finansinspektionen legalised bitcoin and other cryptocurrencies in the country defining them as an asset, not money.

Sweden has many bitcoin startups including Safello Exchange and, in the past, one of the largest manufacturers of mining equipment, KnCMiner. The company was the first to release ASIC-miner in 2013, but it declared bankruptcy in May 2016, citing the halving of the bitcoin mining award (from 25 to 12.5 BTC) as the main reason.

Bitcoin mining is subject to taxation in the country, but only if it makes a profit.

### **Views**

Sweden has been against cash for many years now, and their regulations have led to a drop in cash circulation of about 40% since 2009. The vast majority of financial transactions are done by debit card or other non-physical means. Officially, they are looking at making a decision on issuing what would be known as the e-krona by 2018.

# Blockchain Technology Application/ Innovation

Sweden has plans to become the world's first cashless country. Sweden says that cash is increasingly falling into disuse. Sweden is trying to become the world's first cashless society and wants to use the blockchain as an alternative. This has been highly motivated by the IT industry in the country which has seemingly helped the country to crackdown on a series of organised crime institutions.

It seems that the new P2P payment systems and payment mobile systems have been revolutionising the way people use their money. The latest advancements on several financial technologies, including bitcoin, have led the country to embrace a new wave of options that will have their influence in the near future. The country already foresees the chance of turning into a cashless system in a few years. The increased use of P2P technologies and new payment systems are making this supposition a real probability.

Sweden is currently working on a project with Blockchain company Chomoway, consulting firm Kairos Future and telecommunications provider Telecom to adapt its land registry to blockchain. The transactions would be put on blockchain once the contract has been created and all parties involved would be able to follow the transaction's progress.

# United Kingdom

### **Bitcoin Regulation/status**

The UK regards bitcoin as a personal asset. Goods and services purchased for bitcoins are subject to value added tax. The cost of goods or services subject to VAT must comply with the value of bitcoin in pounds sterling at the time of purchase.

VAT will not be charged on digital currency transactions and margins will not be taxed. Other taxes, including corporation tax, will apply, although each case will be considered on the basis of its own individual facts and circumstances.

Further ahead digital currency exchanges will have to comply with new stricter cybersecurity standards (which will apply to service providers such as those supporting banking and financial market infrastructures) when the Network and Information Security Directive is introduced (by May 2018).

Whilst the position in the United Kingdom will be subject to the outcome of negotiations over Brexit, the reality is that certainly in the medium term, the UK will continue to fully implement and be subject to EU legislation.

# Blockchain Technology Application/ Innovation

On 10 April 2017, the UK Financial Conduct Authority ('FCA') published discussion paper DP17/3 on distributed ledger technology. The FCA's initiative on DLT follows on from its Project Innovate, which has included the creation of the FCA's 'regulatory sandbox', whereby firms, including those developing DLT platforms, have been able to test innovative products and solutions in regulated financial services. The FCA Discussion Paper is aimed at users and providers of DLT technology in the financial services sector that falls within the FCA's supervision. Generally, the tone of the FCA Discussion Paper is positive, noting and requesting examples of benefits of DLT, while recognising that DLT is a nascent technology and its uptake will ultimate depend on the willingness of firms to adopt it. Compared with IOSCO, which takes a more conservative approach towards public blockchains in its reports, the FCA is interested in feedback on the potential risks of closed networks that exclude non-incumbents.

### **ICOs**

On 12 September 2017, the FCA released brief guidance on ICOs, which defines an ICO as a "digital method of raising funds from the public, using a virtual currency".

### **ICO Risk Factors**

- Unregulated space: most ICOs are not regulated by the FCA and many are based overseas.
- No investor protection: investors are extremely unlikely to have access to UK regulatory protections like the Financial Services Compensation Scheme or the Financial Ombudsman Service.
- Price volatility: like cryptocurrencies in general, the value of a token may be extremely volatile and vulnerable to dramatic price fluctuations.
- Potential for fraud: some issuers might not have the intention to use the funds raised in the manner set out when the project was marketed.
- Inadequate documentation: instead of a regulated prospectus, ICOs usually only provide a "white paper". An ICO white paper might be unbalanced, incomplete or misleading. A sophisticated technical understanding is needed to fully understand the tokens' characteristics and risks
- Early stage projects: ICO projects are typically in very early stages of development and their business models are experimental. There is a good chance an investor could lose their entire stake.

The FCA states that whether or not an ICO falls within the FCA's regulatory purview is something that can only be decided on a case by case basis. While many ICOs will fall outside the regulated space, depending on their structure, some ICOs may involve regulated investments and firms which may be conducting regulated activities.

Businesses involved in an ICO are advised to consider if their activities could mean they are arranging, dealing or advising on regulated financial investments. Both promoters and exchanges are advised to consider if they need to be authorised by the FCA to deliver their services.

The FCA guidance notes that some ICOs may share similarities with initial public offerings, private placements of securities, crowdfunding or collective investment schemes and may therefore fall within the prospectus regime.

# Countries that are undecided in respect of digital currencies

# China

### **Bitcoin Regulation/status/views**

The official attitude towards bitcoin in China is ambiguous. Its legal status is far from being equal with that of a fiat currency because financial companies are directly forbidden to own it.

On 4 September 2017, a notice from a committee led by China's central bank announced an immediate ban on Initial Coin Offerings ('ICO'). The committee has prepared a list of 60 Chinese exchanges which will be subject to inspection and a report. At the time of writing, there is an ICO freeze in China.

BTCC in China was the longest running exchange in the world until it was shut down in September 2017.

A press release from the PBOC in January 2017 outlined that there is significant volatility in bitcoin trading, and also quoted from a notice released in 2013 saying that bitcoin is a virtual good and doesn't have legal tender status.

# Colombia

### **Bitcoin Regulation/status**

In August 2016, the first bitcoin exchange in Colombia, Colbitex, went offline due to legal issues with digital currency in the country. According to a report dated August 2016, the closure is a temporary measure while the company and regulators determine the legal framework under which it may operate, if at all.

### **Views**

Colombian security forces continue to struggle with the twin issues of narco-trafficking and Communist rebels, both of whom may see value in bitcoin as a means of payment for illicit transactions.

# Israel

# **Bitcoin Regulation/status/views**

The bitcoin community in Israel represents one of the most active bitcoin communities in the world.

In June 2016, Intel announced the creation of a fintech lab in Tel Aviv. The research conducted will revolve around blockchain technology, biometrics and the Internet of Things and the lab will be in association with The Floor, the Tel Aviv Fintech hub.

A Deloitte report dated February 2016 explained that Israel had become a hub of startups and blockchain innovation due to its strong defence industry, technological military units and academic institutes.



# Lithuania

### **Bitcoin Regulation/status/views**

On 11 October 2017, Lithuania's central bank expressed its belief that ICOs should be regulated as securities. The central bank asserts that future regulations may differ depending upon the particularities of each individual ICO, stating that "when deciding on the application and scope of specific legislation of the Republic of Lithuania for specific ICOs, the conditions of the relevant ICOs should be analysed and assessed".

According to a press release dated 1 October 2017, published by the Bank of Lithuania, "financial market participants should not engage in the sale of virtual currencies, provide conditions for customers to pay in payment instruments issued by them (e.g. debit or credit cards, etc.), execute any operations in virtual currencies, and also engage in their exchange or similar activities." The statement also states that businesses "should not link their services to virtual currencies and create an impression that such services are supervised and subject to the same security standards as those applicable to financial services are".

Lithuania does not regulate bitcoin; however, it has issued warnings to individuals about the risks associated with it.

# Blockchain Technology Application/ Innovation

Lithuanian policymakers are particularly keen to take a lead on blockchain. Local venture capital firm Nextury Ventures hosted a blockchain and bitcoin conference in the capital city, Vilnius in April 2016, in conjunction with the mayor's office, and the central bank is in talks with several bitcoin exchanges about the possibility of issuing them with e-money licenses.

# Mexico

### **Bitcoin Regulation/status/views**

The Mexican Government has introduced strong virtual currency anti-money laundering regulations and the Bank of Mexico released a warning on the use of bitcoin by associating the use of bitcoin with other "illicit operations, including fraud and money laundering."

Mexico receives around \$25 billion a year in remittances from Mexican workers in the US sending money back home to their families in Mexico. Nearly all of these remittances are sent by electronic transfer. Western Union is the leader here and has been an innovator in this space for over 100 years. Given that Mexico and Texas is the largest remittance corridor in the world, there's a growing need for bitcoin ATMs and other methods of gaining bitcoin, which is seen as a lower cost alternative to other dollar-denominated services being used in the country.

### **Views**

In September 2016, bitcoin exchange startup Bitso raised \$2.5m to make it easier for the underbanked in Mexico to gain access to financial services.

Among the investors is Mexico-based foreign exchange, Monex Group, which in 2015 conducted \$160bn in transactions in Europe, the US and Latin America.

Bitso's co-founder and president, Daniel Vogel, told CoinDesk he believes the expertise of Monex and the other investors will help the startup grow from its "strong footprint" of users in Mexico to elsewhere in Latin America.



# New Zealand

# **Bitcoin Regulation/status/views**

Bitcoin is not regulated in New Zealand, however, a report dated December 2016 stated that national police have voiced concern at the rise of cryptocurrencies such as bitcoin, and are considering regulation.

# Philippines

### **Bitcoin Regulation/status**

Bitcoin is unregulated in the Philippines for now, however, in December 2016, the Philippines Government discussed whether to regulate digital currencies to improve protection for its citizens as the number of Filipinos abroad using bitcoin to send money back home increases.

In December 2016, Bangko Sentral ng Pilipinas, the central bank of the Republic of the Philippines, estimated that digital currencies used in transactions had increased by around \$2 million every month in 2016 and was, therefore, concerned about an increase in money laundering activity.

With the Philippines launching its first two-way bitcoin ATM in 2015, the digital currency is set to only increase in popularity as more people turn to it as the payment choice for remittance services.

# Russia

### **Bitcoin Regulation/status/views**

On 16 October 2017, Russia's president Vladimir Putin ordered the issue of the national cryptocurrency, the "cryptoruble." This decision followed a meeting Putin had with Russia's top regulators where he instructed the central bank not to create "unnecessary barriers" to cryptocurrencies. The reason for its issuance is to streamline the payment of personal income tax. The cryptoruble cannot be mined and it will be a closed model with a certain volume of regulated emissions.

It should be noted that, the creation of the cryptoruble would not equal the legalisation of bitcoin and other cryptocurrencies in Russia.

Cryptocurrencies, including bitcoin, are not regulated in Russia despite many attempts by various government departments to put forward proposals to regulate them. Both the central bank and the finance ministry have been working separately on a draft law to regulate cryptocurrencies. A draft bill was supposed to be introduced in October 2017, but was postponed due to a lack of consensus among the regulators. However, on 12 October 2017, the Russian government decided to put forward plans to officially regulate the mining and circulation of cryptocurrencies.





# South Africa

# **Bitcoin/Blockchain Regulation/status**

The legal status of bitcoin in South Africa is akin to that of most countries around the world, whereby cryptocurrencies are not prohibited. While the official position and lack of regulation remains the same, there is a possibility of the Government looking into regulating and recognising bitcoin in the future.

Bitcoin users in Africa as a whole have been quite conservative. The level of acceptance of cryptocurrency in Africa has been very low when compared to other parts of the world. Nevertheless, awareness and usership of the cryptocurrency keeps increasing.

Bidorbuy, Africa's largest online marketplace, now accepts payments in bitcoin.

The 'Blockchain and bitcoin Africa Conference' took place in Johannesburg on March 3-4 2016. This was an event that had representation from other African countries such as Botswana, Kenya, Ghana and Zimbabwe.

# Spain

### **Bitcoin Regulation/status/views**

It was confirmed in November 2016 by the Spanish Government that bitcoin payments were a form of financial service and thus exempt from VAT under the Council Directive 2006/112/EC of 28 November 2006.

However, in September 2016, the Spanish tax authority published a report stating that Spain sees bitcoin mining as an economic activity, opening cryptocurrency mining to taxation.

The National Directorate of Tax requires all cryptocurrency miners to register themselves with Spanish authorities before submitting taxes on mining-earned profits.

The report confirmed that the reasons for the introduction of the new regulation is to curb money laundering, tax evasion and the 'possible' relation to cybercriminal activity and tools such as ransomware.

The newly imposed tax for cryptocurrency miners comes in after Spanish law enforcement seized six bitcoin mines in May 2016 that were allegedly used by a criminal network involved in the illegal distribution of pay-TV channels in the country.

# Taiwan

### **ICO Regulation**

On 6 October 2017, it was announced that Taiwan would not regulate against initial coin offerings ('ICOs') and cryptocurrencies like bitcoin and will avoid the hardline stance taken by the likes of China and South Korea. The head of Taiwan's financial regulator has pledged to adopt a friendly stance to support the development and adoption of both cryptocurrencies and blockchain technology in the country.

It was reported that, in October 2017, Taiwan were in the process of passing a piece of legislation called the "Financial Technology Innovation Experimentation Act" which, if approved, will effectively establish a fintech sandbox for cryptocurrency and blockchain startups in a deregulated space.

# Blockchain Technology Application/ Innovation

In December 2016, a consortium of Taiwanese financial institutions developing blockchain services is on the verge of entering a newly created safe-haven for FinTech startups.



# Ukraine

### **Bitcoin Regulation/status/views**

On 24 September 2017, the Ukrainian Government confirmed that in their view bitcoin is not a currency due to the absence of a Government issuer and that bitcoin will not be legally recognised as a form of payment.

Ukraine has a supportive cryptocurrency ecosystem. Many major banking institutions in Ukraine have started accepting bitcoin payments through their merchant solutions. There is no regulation in place to hinder growth of bitcoin or blockchain.

In December 2016, the Ukrainian Exchange announced the launch of new futures contracts on an index price of bitcoin. The Ukrainian Exchange is the first regulated market in the world ever to offer futures contracts on bitcoin.

Local legislation restricts the ability of Ukrainians to access financial instruments available on the developed markets using fiat currencies so it is expected that the National Securities and Stock Market Commission of Ukraine will be able to manage high liquidity for bitcoin futures contracts.

# Vietnam

### **Bitcoin Regulation/status/views**

While it is not prohibited for individuals to own cryptocurrencies in Vietnam, it is so for financial institutions. The authorities do not recognise bitcoin as either a currency or commodity. Its status is unclear, and any business dealing with it will be penalised.

# Albania

### **Bitcoin Regulation/status**

Bitcoin is neither well-known nor popular in Albania, meaning that there has been absolutely no regulation at all in the area. In fact, there has barely been mention of bitcoin from any national agency in the country. Should bitcoin use become more popular within the country, the authorities might start to pay attention to the subject more though, and regulation could well follow.

# Argentina

### **Bitcoin Regulation/status**

Argentina hosts the largest bitcoin community in Latin America, and is home to dozens of entrepreneurs that have launched diverse startups, but the volume at the exchanges is minimal.

The Argentinian Government has opened its doors to bitcoin entrepreneurs; however, the national bank has expressed mixed opinions about bitcoin, but confirmed they are interested in adopting the Blockchain technology for the monetary authority.

According to a report by Cointelegraph, dated October 2016, over a hundred shops and professionals accept bitcoins in Buenos Aires, according to Coinmap, including dentists, law firms, cafes, and bed and breakfasts, but still most of bitcoin users are independent professionals and companies using the cryptocurrency for international transfers.

# Belgium

### **Bitcoin Regulation/status**

The Belgian Government has a hands-off attitude when it comes to bitcoin, with the Minister of Finance publicly stating that there is no reason for the Government to intervene at the present time. However, in February 2016, the Financial Markets and Services Authority, in Belgium announced they are banning the use of derivatives based on bitcoin. This will hit many of traders that use this asset in their portfolios.

The National Bank of Belgium has no intention of intervening in bitcoin business or regulating it, says the Belgium bitcoin Association. There are no specific laws or regulations regarding bitcoin in Belgium.

The Federal Public Service Finance has also given bitcoin a value-added tax exempt status.

# Croatia

### **Bitcoin Regulation/status**

As of 2017, there is no central monitoring or regulation of bitcoin by the Croatian Government, however future regulation by the national central banks has not been ruled out.

Croatia is one of the many countries around the world seeing an increase in the number of drug-related shipments passing through local post offices. In September of 2016, law enforcement agents confiscated a package containing 130 grams of amphetamines. Similar trends have been noted in other countries around the world, particularly the United Kingdom, the Netherlands, and Germany.



# Cyprus

### **Bitcoin Regulation/status**

Authorities have adopted a neutral stance in relation to bitcoin. The island's legislature does not have any regulations or controls related to the digital currency.

In March 2014, the Ministry of Finance, the Ministry of Energy, Commerce, Industry and Tourism and the Central Bank of Cyprus wish to draw the attention of the public to the risks associated with the purchase, holding or trading of virtual currencies (such as bitcoin), which are not legal tender nor financial instruments.

# United Arab Emirates

# **Bitcoin Regulation/status/views**

On 1 January 2017, the UAE Central Bank <u>published</u> the Regulatory Framework For Stored Values and Electronic Payment Systems (**the 'Regulations'**). The focus of the Regulations was "to facilitate robust adoption of digital payments across the UAE in a secure manner,".

The Regulations contained the following statement which initially caused some concern among the cryptocurrency community in the UAE. On 1 February 2017, the Governor of the UAE central bank, His Excellency Mubarak Rashed Khamis Al Mansouri, issued a statement to Gulf News saying that "these regulations do not cover 'virtual currency'" and "these regulations do not apply to bitcoin or other cryptocurrencies, currency exchanges, or underlying technology such as Blockchain." He further added that virtual currencies are under review by the Central Bank and new regulations will be issued as appropriate.

# Ghana

### **Bitcoin Regulation/status/views**

In Ghana, bitcoin demand is surging. Not only is the financial situation rather dire in that part of the world, but services like Bitpesa have also successfully gained market share in Ghana. This means bitcoin is "advertised" prominently in the country, and a lot of people are aware of what this cryptocurrency can do for them.

Ghana does not have an individual LocalBitcoins chart either, although it is safe to say bitcoin is quite prominent in the region. It will be interesting to see if this situation will change in the coming years. More countries are trying to introduce some form of bitcoin legislation, which helps "validate" the cryptocurrency in the eyes of the general population.

# Greece

# **Bitcoin Regulation/status/views**

The use of bitcoin in Greece is completely unregulated, as the Government hasn't passed any legislation concerning the digital currency at all. The Bank of Greece made a statement in 2014 about bitcoin, warning investors that losses concerning the change of price of bitcoin are not protected. As of December 2016, it is completely legal to trade bitcoins, and there is no chance of being arrested or prosecuted for doing so.

In December 2016, ten times as many Greeks registered to trade bitcoins on the German marketplace bitcoin.de than usual. Bitcoin trades from Greece have increased by 79% from their ten-week average on Bitstamp, the world's third-largest exchange.





# Hong Kong

### **Bitcoin Regulation/status**

In Hong Kong, bitcoin is viewed as a digital commodity. The only role of the Government is to advise against using cryptocurrency because of the high risks associated with it. Regulation has not been ruled out entirely, with the Hong Kong Monetary Authority ensuring that it keeps a close eye on bitcoin usage in the country.

The Special Administrative Region (SAR) of China and financial hub has remained otherwise hands-off in its approach to bitcoin, saying it does not pose a risk to the financial system if it is not widely adopted.

# Blockchain Technology Application/ Innovation

The Hong Kong Monetary Authority (HKMA) has teamed up with local banks and the R3 consortium to explore the creation of a central bank digital currency. The partners are investigating the use of such a currency in performing domestic inter-bank payments, inter-corporate payment in the wholesale market and delivery versus payment debt securities settlement. HKMA is already working on the use of distributed ledger technology for trade finance, carrying out a proof-of-concept with Bank of China, Bank of East Asia, Hang Seng Bank, HSBC, Standard Chartered Bank and Deloitte.

# Hungary

### **Bitcoin Regulation/status**

In December 2016, the National Bank of Hungary issued a public statement warning citizens who use or invest in cryptocurrencies such as bitcoin, citing their unregulated nature amid increasing instances of high-return investment schemes abusing the cryptocurrency.

There are however no regulations surrounding the use of bitcoin or other digital currencies in Hungary.

The National Bank of Hungary has a rather confusing stance on the currency, as they have warned citizens that bitcoin is "much riskier" than many other forms of payment, but have also acknowledged the advantages of the currency, such as its speed and anonymity. This means that the Hungarian stance on bitcoin closely resembles that of the European Union.

# India

### **Bitcoin Regulation/status/views**

In June 2017, The Department of Economic Affairs in the Ministry of Finance in India formed an inter-disciplinary committee to examine the framework on virtual currencies. Despite some initial reservations, the Indian government is keen on understanding how bitcoin works and is willing to deploy resources to build frameworks.

As of November 2016, India has experienced an unprecedented cash crunch that sees over a billion people facing Government-imposed limits on ATM and bank withdrawals. The move to demonetise 500 and 1000 rupee banknotes meant that 86% of Indian cash in circulation was rendered obsolete overnight. The Government is pushing its agenda toward digital banking and cash, a growing percentage of the population is turning to bitcoin as a safe store of value.

Zebpay, a prominent Indian bitcoin exchange now sees 200,000 registered users in its trading platform, with 50,000 new users added last month in November 2016.

The Indian Government does not wield any regulatory oversight upon bitcoin; however, it is likely that regulation will be implemented within 2-3 years, following the example of countries like Japan, Singapore and the USA. Until then, Zebpay implements a KYC process of identification before allowing users to trade on its platform.

# Indonesia

### **Bitcoin Regulation/status/views**

Bitcoin is unregulated in Indonesia. BitX, is a bitcoin exchange in Indonesia and has seen its customer base increase ten times since June 2016.

On 24 September 2017, Indonesia's central bank, the Bank of Indonesia, reaffirmed that bitcoin transactions are not legally recognised according to its "Service Provider of Payment System" legislation.

# Ireland

### **Bitcoin Regulation/status/views**

The Central Bank of Ireland stated, in 2014, that it does not regulate bitcoins at all. Those in the Republic of Ireland are free to use bitcoins as a currency, both online and in land-based venues. This complete lack of regulation from the Government means that the Republic of Ireland is one of the easiest countries in the world to use the currency.

# Blockchain Technology Application/ Innovation

The Blockchain Association of Ireland is to officially launch, on December 2016, in the country as it attempts to establish the country as a global hub for FinTech.

Blockchain academic research is thriving in Ireland. Deloitte has recently announced that it is creating a blockchain research and development department in Dublin that will be comprised of 50 developers. This is part of its FinTech initiative 'The Grid'.

In March 2016, the Bank of Ireland announced its successful peer-to-peer blockchain trial demonstrating the means for distributed ledger technology to enable banks to combine the technology with existing banking systems.

# Malta

### **Bitcoin Regulation/status/views**

There are absolutely no rules or regulations for individuals in place surrounding bitcoin in Malta. Bitcoin users are completely free to spend, trade and mine the digital currency, without any risk of being prosecuted for doing so. However, Malta's government has advanced its plans for cryptocurrency legalisation and allow the usage of bitcoins at online casinos.

There is an issue when it comes to gambling websites registered with the Malta Gaming Authority, as they do not recognise bitcoin as a form of payment. Should the Malta Gaming Authority find a casino accepting bitcoin, they could revoke the license of the casino in question. It is expected that the use of bitcoins at online gambling websites registered with the Malta Gaming Authority will be allowed by 2017.

# Blockchain Technology Application/ Innovation

On 18 September 2017, it was announced that the Government of Malta was launching a new task force to advise on the implementation of the country's national blockchain. The task force was calling for proposals from seven advisory companies, with the ultimate goal being to help increase the digital economy.

During the launch of the government's Blockchain strategy, in April 2017, Malta's Prime Minister Joseph Muscat stated that the country should be one of the first to adopt Blockchain.



# Malaysia

### **Bitcoin Regulation/status**

There are no laws in Malaysia regulating the use of bitcoin at present in 2017.

With the tightening of capital controls in more traditional financial services due to reports of major banks and investment funds being involved in money laundering, startups like Coins.my are making it easier for Malaysians and expats to buy, sell, and pay for utility bills with bitcoin.

Bitcoin is not recognised as legal tender in Malaysia. The Central Bank does not regulate the operations of bitcoin. The public is, therefore, advised to be cautious of the risks associated with the usage of such digital currency."

# Nigeria

### **Bitcoin Regulation/status**

There are no explicit regulations concerning bitcoin in Nigeria. The Central Bank of Nigeria stated, in 2017, that "they cannot control or regulate bitcoin.

# Poland

### **Bitcoin Regulation/status**

There are no explicit regulations concerning bitcoin in Poland. Poland's Ministry of Finance has publicly stated, in 2016, that it does not consider bitcoin to be illegal, but also does not want to hinder the development of the currency. It was also stated that bitcoin can not be classed as legal tender though, and that it is also not electronic money. The fact that bitcoin is not illegal has not stopped some banks from closing accounts of some bitcoin traders though, as they have made the decision to class bitcoin trading as a criminal activity. So, essentially the Government has no problem with bitcoin, but some of the banks do.

In October 2016, the Polish Government had a debate in the Polish Parliament regarding bitcoin regulations. It was accepted that regulations are necessary to protect the investors' interest without hindering the freedom of the community or hampering the progress of technology development.

BitBay is the leading cryptocurrency platform in Poland, its CEO Sylwester Suszek's attendance in the event allowed them to explain the various challenges faced by cryptocurrency companies to the country's lawmakers. Suszek, during the presentation, is said to have stressed upon the need for co-operation between companies and Government institutions to create the much-needed solutions for the public using cryptocurrencies.

# Portugal

### **Bitcoin Regulation/status**

As of 2016, there is no central monitoring or regulation of bitcoin by the Portuguese Government.

# Romania

### **Bitcoin Regulation/status**

There are no explicit regulations concerning bitcoin in Romania (2017).

Bitcoin falls into the category of movable goods and is not currency, any transaction which implies a "payment" in bitcoin can be qualified as a barter, according to Article 1763 of Romanian Civil Code.

In the case of a business which accepts payment in bitcoins, the bitcoins must be registered as assets in the bookkeeping, and income tax will be determined based on the "market price" for those respective assets (as provided by Article 10 of the Romanian Tax Code). This might trigger the need to evaluate the bitcoins in order for them to be correctly registered in the bookkeeping.

# South Korea

### **Bitcoin Regulation and ICO status**

On 29 September 2017, South Korea's financial regulator banned ICOs and announced that virtual currency trading should be tightly controlled.

There are no laws in South Korea regulating the use of bitcoin at present in 2017.

The chairman of South Korea's Financial Services Commission, Yim Jong-yong, announced in October 2016 that the Financial Services Commission will "Lay the systemic groundwork for the spread of digital currency." There are no details about the form or technology that the Financial Services Commission's digital currency will use, other than a suggestion that it would include a blockchain, a consortium on blockchain technology to jointly research and run pilot projects will be launched by the Government and the local financial industry players this year.

In February 2016, one of South Korea's largest banks, KB Kookmin, announced a partnership with the number two bitcoin exchange by Korean won volume, Coinplug, in order to develop remittance and data storage services.

# **Thailand**



### **Bitcoin Regulation and ICO/status**

On 24 September 2017, it was reported that the Securities and Exchanges Commission of Thailand warned that ICOs issuing tokens that "resemble financial returns, rights and obligations in similar ways to securities under the Securities and Exchange Act" will fall under its regulatory jurisdiction.

The SEC Thailand is seeking to adopt a balanced policy with regard to ICOs, expressing a desire to "strike the balance between supporting digital innovation and protecting investors from potential ICO scams.

Bitcoin is not regulated in Thailand.

# Blockchain Technology Application/ Innovation

In September 2016, the Bank of Thailand held a public meeting through its website regarding Fintech regulation. Residents, startups, and entrepreneurs had an opportunity to share their opinions and concerns. The sandboxed regulatory environment was established in Q1 of 2017.

According to a report, dated September 2016, from btcmanager.com, the approach will be very localised, as only companies offering their products and services within Thailand will be allowed. To be more precise, none of the regulatory sandbox members can extend their offering to international customers. Everything will be developed in Thailand, and only offered to Thai clients.

# Turkey

### **Bitcoin Regulation/status**

Bitcoin is not regulated as it is not considered to be electronic money according to Turkish law (2017).

It was announced, in August 2016, that Turkish bitcoin exchange BTCTürk had been forced to cease its operations in Turkey after failing to find support from local banks, the last of whom terminated BTCTürk's banking account. However, bitcoin operations and balances seem to have remained unaffected, allowing users to retain their BTC with the exchange or transfer it elsewhere.

Turkey denied Paypal a renewed license to operate in the country because Paypal does not localise all of their IT infrastructure inside the country. The ceasing of operations took effect in June 2016. An opportunity for other peer-to-peer transaction and merchant payment solution methods, BTCTurk (Turkey's largest bitcoin exchange) has since witnessed a huge increase in volume following the announcement. BTCTürk saw 5000 BTC, roughly just under \$3 million at the time in total trading volume, a record trading volume for the exchange in 2016.

# Venezuela

### **Bitcoin Regulation/status**

Venezuelan Government officials have never communicated their stance on the technology, but Venezuelan law is very clear on its definition of money, and bitcoin doesn't fit in that definition. Bitcoin is considered property rather than money in Venezuelan law (2017).

Bitcoin is generally viewed by Venezuelan citizens as a positive innovation. (2016)



# Guidance on digital currencies and distributed ledger technology

**University of Cambridge Judge Business School** – *Global Blockchain Benchmarking Study* published 24 September 2017. The report presents a systematic and comprehensive picture of a rapidly evolving industry, examining how blockchain and distributed ledger technology (DLT) are being used in the public sector and enterprise.

**Bank of International Settlements** – <u>Central bank cryptocurrencies</u> dated 17 September 2017. The BIS quarterly report looks at the topic of cryptocurrencies, and in particular that of central bank cryptocurrencies.

**Financial Conduct Authority ('FCA') DP17/3** – "Discussion Paper on distributed ledger technology." dated 10 April 2017. The FCA launched a discussion to start a dialogue on the potential for future development of distributed ledger technology in the markets they regulate. The FCA are particularly interested to explore where the balance of risk and opportunities may lie in relation to distributed ledger technology.

**European Securities and Markets Authority ('ESMA')** guidance – <u>The Distributed Ledger Technology Applied to Securities</u> <u>Markets</u> dated 7 February 2017. This report analyses the benefits and risks of Distributed Ledger Technology.

**European Union Agency for Network and Information Security ('ENISA')** – <u>Distributed Ledger Technology & Cybersecurity: Improving information security in the financial sector</u> dated December 2016 (published 18 January 2017). This paper assesses the various benefits and challenges that institutions may encounter when implementing distributed ledger technology.

**UK Government – Government Office for Science**: <u>Distributed Ledger Technology: Beyond the blockchain</u> published 19 January 2016



# BTC/Blockchain funding rounds updates

Date	BTC/Blockchain Company	Funding Partners	Funding Amount
09/2017	M2Gen	Hearst Communications	USD \$75 million
06/2017	Blockchain	Google's GV, Lakestar, Lightspeed Venture Partners and Sir Richard Branson	USD \$40 million
02/2016	Credits	BankToTheFuture, Business Instincts Group, Private Investors	USD \$550,000
11/2015	BTL Group	Shafin Diamond, Harry Dobson, Brian Hinchcliffe, and Vela Technologies.	USD \$2 million
29/04/2015	Circle	Goldman Sachs and IDG Capital Partners	USD \$50 million
10/03/2015	21 Inc	Andressen Horowitz, Qualcomm, eBay founder Peter Thiel and Dropbox CEO Drew Houston.	USD \$116 miilion
20/01/2015	Coinbase	New York Stock Ex.  Fortune 500  BBVA  DoCoMo	USD \$75 million
07/10/2014	Blockchain	Lightspeed Venture Partners and Wicklow Capital. Blockchain	USD \$30.5 million
13/05/2014	BitPay	Index Ventures, Horizons Ventures, Founders Fund, Felicis Ventures, RRE Ventures, TTV Capital, Sir Richard Branson and AME Cloud Ventures	USD £30 million

# Initial coin offerings

### How is money raised?

ICO funds are usually received in bitcoin or ether. The project creates a bitcoin or ethereum address for receiving funds and displays it on a web page. This is like opening a bank account, and displaying it on a web page for people to send money to. Investors send bitcoin or ethereum to the published address, in return for the new tokens. The project uses the bitcoin or ethereum to pay staff, or sell the cryptocurrency for fiat currency on a cryptocurrency exchange to fund the project.

### Where are the new tokens stored?

The tokens issued by the project to investors are generally created and tracked in one of two ways:

- as the intrinsic token of an entirely new blockchain (for example ethereum was funded by exchanging wallets funded with ethereum tokens in exchange for bitcoin from investors)
- or as a token on top of an existing blockchain; (e.g. as a colored coin on bitcoin's blockchain or a digital token held on ethereum's blockchain).



# **ICOs – Typical characteristics**

Each ICO is unique, but below are some of the usual characteristics.

Some of these characteristics are shared with traditional methods of fundraising (seed rounds, Series A, B, C, etc). However, traditional private company fundraising is regulated in most jurisdictions due to the risks to investors, whereas currently ICOs are unregulated.

- The project is usually a technology project related to cryptocurrencies, digital tokens or blockchain. These projects appeal to investors who are familiar with cryptocurrencies and how they work.
- Investor documents are usually a webpage, a whitepaper (usually not peer reviewed), and some internet forum posts. There are no rules or laws to compel the project to make accurate statements in those documents, and often they exaggerate benefits, do not identify risks, and create unsubstantiated hype. This is different to traditional forms of fundraising where investors have recourse if investor documents are wildly inaccurate.
- Usually identification is light on both sides. Investors often
  do not need to self-identify; nor do the people running the
  project. Often the projects will not perform identity checks
  on investors or the investors' source of funds to determine if
  the project is complying with global sanctions, or if they are
  accidentally laundering the proceeds of crime, or funding
  terrorism. This is different to traditional forms of
  fundraising, where the identities of investors are usually
  known or broadly vetted.
- The amount raised is transparent but can be gamed. bitcoin and ETH payments to an ICO deposit address are logged on public blockchains, allowing anyone to see the quantity and amounts going to an ICO address. Although the amounts invested are transparent, it's hard to know who sent the funds. This means it is almost impossible to tell if the project itself invests, without disclosure, to give the illusion of popularity and momentum, and create hype and fear of missing out. Traditional forms of fundraising share the characteristic of "seeding" the round with big names and commitments, but the investors are known and identified.

- Tiering/early investor advantage. Often the crowdsale is offered with tiering, where early investors are offered a better price than later investors. For example, in Ethereum's initial crowdsale early investors received 2000 ETH per 1 bitcoin and later investors received only 1337 ETH per 1 bitcoin. This can be done by creating limited investment opportunities: either time-bound, where the best price is available for the first week; or amount bound, where the best price is available for the first 2,000 bitcoin invested. This is similar to traditional fundraising, where early investors get a better deal than later investors by tiering the company valuation. However, ICOs operate at a different timescale, where price changes can happen in a matter of minutes rather than months for a traditional series of investments.
- Coin retention and price discovery. Usually the project will hold back some tokens (eg, 60% will be sold in the ICO, and the project will retain 40% of the tokens). This gives the project a valuation of their token holdings based on the price of the token ICO multiplied by the number of tokens they retain. Sometimes the project will state how they intend to use these retained coins, eg compensating staff. This is similar to traditional investments the price of an illiquid chunk of equity is usually determined by the company valuation of the most recent funding round.
- Minimums and maximums. There are sometimes
  minimum and maximum total amounts to be raised. If the
  minimum is not reached, investors are refunded and the
  project doesn't continue. When the maximum is reached,
  no more coins are given out; any additional (late)
  investments are refunded. With cryptocurrencies this can
  be done automatically, without the ICO managers needing
  to know the identity of the investor.

Ethereum and its development was funded by an online public crowdsale in mid-2014. People were able to buy the crypto token Ether for bitcoin. Ethereum managed to raise a record sum of \$18.4 million in their ICO.

Completion date	BTC/Blockchain Company	Product Description	Amount Raised (approx.)
10 September 2017	Filecoin	Filecoin is a cryptocurrency-powered storage network. Miners earn Filecoin by providing open hard-drive space to the network, while users spend Filecoin to store their files encrypted in the decentralized network.	\$252,000,000 (approx)
29 June 2017	TenX	TenX Card acts as a debit card with the accompanying TenX Wallet (a mobile wallet that can be funded with bitcoin, Ether, Dash and virtually any Blockchain asset in time to come).	\$80,000,000
16 June 2018	EOS	EOS enables parallel processing of smart contracts and horizontal scalability allowing an estimated 100K transactions per second.	\$189,336,791
14 July 2017	Tezos	PoS smart contract platform with federated governance and an emphasis on security through formal verification.	\$228,590,404
11 November 2016	Golem	A decentralised supercomputer. Their first target market is animation rendering.	\$8,596,000
12 July 2017	ABT coin	A cryptocurrency designed to deliver fast, secure and near-zero cost payments to anyone in the world.	\$10,841,903
21 June 2017	Status	A mobile messaging platform used to interact with decentralised apps that run on Ethereum.	\$95,000,000
12 June 2017	Bancor Protocolq	Ethereum based token conversion protocol that uses reserve tokens to support trading liquidity and to back the creation of new tokens.	\$153,000,000
17 May 2017	Aragon	Create and manage decentralised organisations in a decentralised jurisdiction.	\$24,750,000
6 January 2017	Wings	A platform for planning, launching, and managing DAOs using the wisdom of prediction markets.	\$2,000,000
28 December 2016	Darcrus	A platform for building enterprise level SQL database dapps	\$295,000
26 December 2016	BlockchainCDN	A blockchain based Content Delivery Network (CDN) that aims to reduce buffering wait times.	\$300,000
22 December 2016	hack.ether.camp	A virtual incubator for Ethereum-based blockchain startups	\$653,000
15 December 2016	vDice	An Ethereum-based gambling platform.	\$1,647,000
11 December 2016	Ark	a Lisk-forked cryptocurrency that will support cross blockchain communication.	\$998,000



# **Key Contacts**



Tony Anderson
Partner
Head of Financial Products and Payments
T: +44 (0)20 7418 7079
M: +44 (0)7917 013388
E: tony.anderson@pinsentmasons.com



Luke Scanlon
Legal Director
Head of Fintech Propositions
T: +44 (0) 20 7490 6597
M: +44 (0) 7887 815 950
E: luke.scanlon@pinsentmasons.com



Charlie Clarence-Smith
Solicitor
T: +44 (0)20 7418 7003
M: +44 (0)7384 248122
E: charlie.clarence-smith@pinsentmasons.com

# Notes



### www.pinsentmasons.com/fintech

This note does not constitute legal advice.

Ins note does not constitute tegal advice.

Specific legal advice should be taken before acting on any of the topics covered.

Pinsent Masons LLP is a limited liability partnership, registered in England and Wales (registered number: OC333653) authorised and regulated by the Solicitors Regulation Authority and the appropriate jurisdictions in which it operates. The word "partner", used in relation to the LLP, refers to a member or an employee or consultant of the LLP, or any firm or equivalent standing. A list of the members of the LLP, and of those non-members who are designated as partners, is available for inspection at our registered office: 30 Crown Place, London, EC2A 4ES, United Kingdom. © Pinsent Masons 2017.