The Current Situation and Future of Cryptocurrency in Japan



Professor Naoyuki Iwashita

Self-introduction

"Financial policies by artificial intelligence" told by the head of the FinTech Center of the Bank of Japan

Naoyuki Iwashita, the head of the FinTech Center of the Bank of Japan

Editorial Department of Diamond Weekly

Author's profile











- 1962 Born in Tochigi Prefecture.
- 1984 Graduated from Faculty of Economics, Keio University and joined in the Bank of Japan.
- Moved to the Institute for Monetary and Economic Studies. After that, engaged in research of information security technology and international standardization utilized in the finance sector for 15 years.
- 2006 Became the head of the center for Information Technology Studies of the Institute for Monetary and Economic Studies which was newly established.
- 2009 Became the manager of the Shimonoseki branch of the Bank of Japan.
- 2011 On Ioan to Hitachi. General Manager of Management Strategy Office of Information/communication system department and Smart Information Division of Hitachi.
- 2013 Associate Director-General of Payment and Settlement Systems Department.
- 2014 Deputy Director-General of the Financial System and Bank Examination Department and Head of the Center for Advanced Financial Technology.
- 2016 Became the head of the newly established FinTech Center of the Payment and Settlement Systems Department.
- 2017 Retired from the Bank of Japan. Became professor at Kyoto University School of Government -graduate program for public policy studies. Advisor of the Financial Services Agency and special advisor of PricewaterhouseCoopers Aarata LLC.

Agenda

- 1. Overview of cryptocurrency market in 2017-18
- 2. ICOs' impact on the price of cryptocurrency
- 3. Cybersecurity issues of cryptocurrency exchange
- 4. Central Bank Digital Currency



GLOBAL BITCOIN NODES DISTRIBUTION

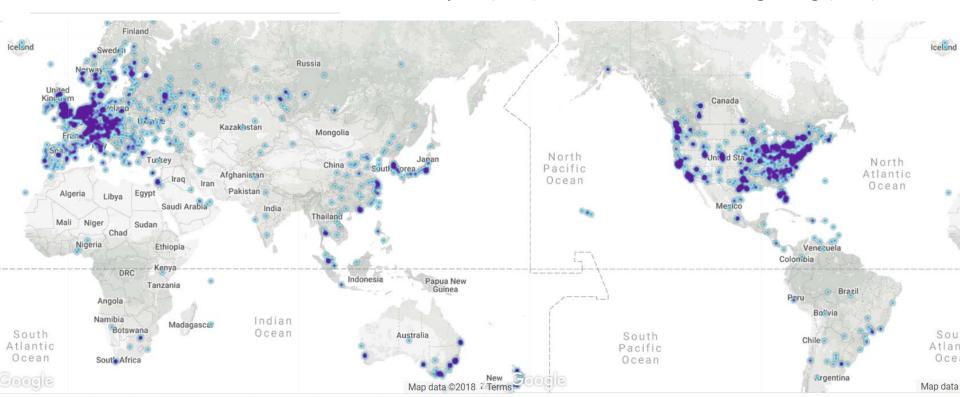
12109 NODES

24-hour charts >>

Top 10 countries with their respective number of reachable nodes are as follow.

- 1. United States (2691)
- 3. Germany (1949)
- 5. Netherlands (515)
- 7. Canada (390)
- 9. n/a (315)
- 11. Japan (212)

- 2. China (2047)
- 4. France (697)
- 6. United Kingdom (421)
- 8. Russian Federation (380)
- 10. Singapore (227)
- 12. Hong Kong (183)



ap shows concentration of reachable Bitcoin nodes found in countries around the world.

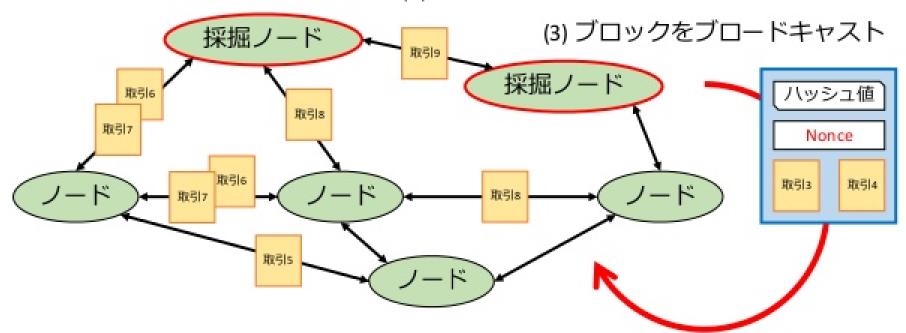
ap shows concentration of reachable Bitcoin nodes found in countries around the world.

Role of Bitcoin nodes

Proof-of-work 18

(1) 各ノードは常に新しい取引情報をブロードキャスト

(2) 採掘ノードは常に採掘処理を実行

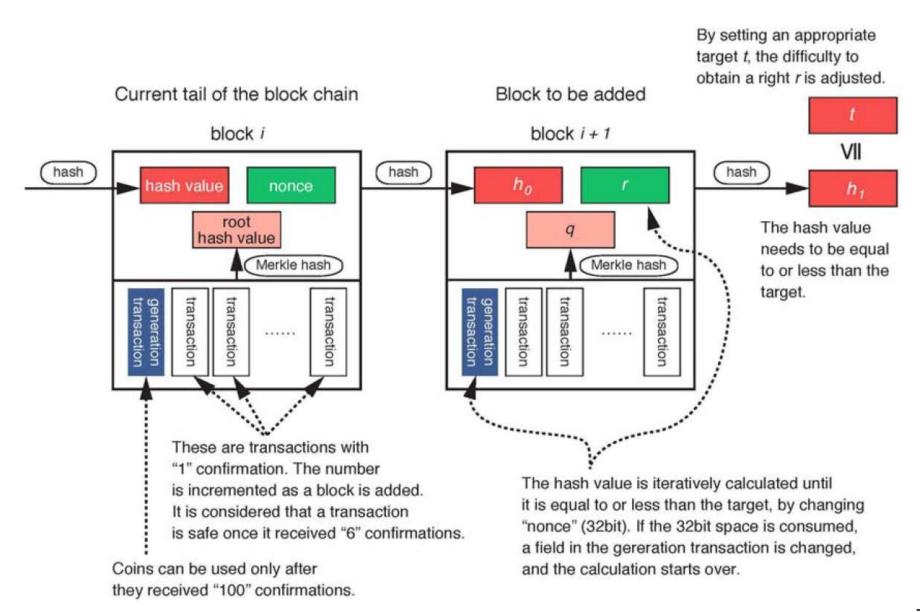


ネットワーク全体で取引の正しさを監視

(4) 各ノードはブロックを検証

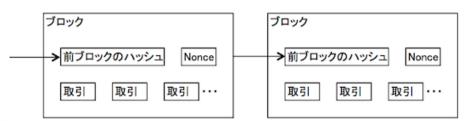
鷲見 拓哉「Bitcoinについて」 https://www.slideshare.net/takuya_sumi/bitcoin-v5

Figure 1 Flow Chart of the Proof of Work





The magic of mining



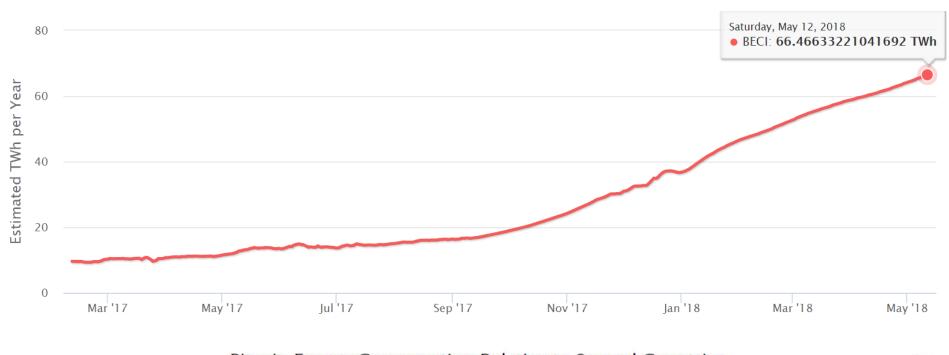
Minting the digital currency has become a big, rutniessly competitive pusiness

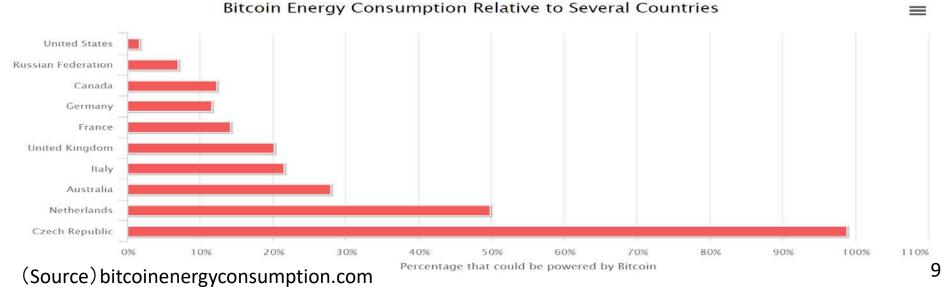
Jan 10th 2015 | BODEN, SWEDEN | From the print edition



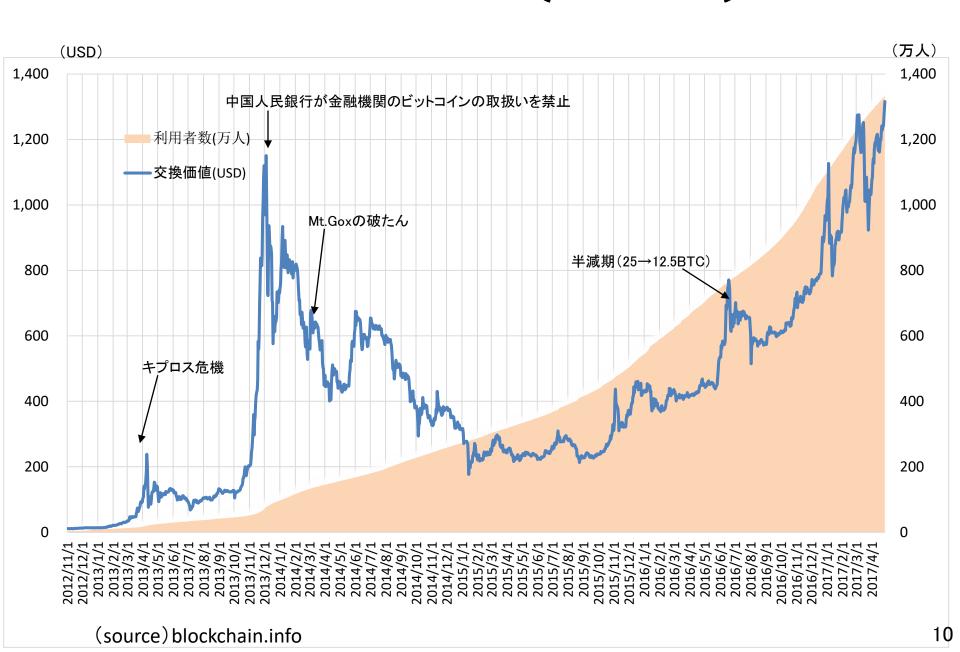


Bitcoin Mining and World Sustainability Problem

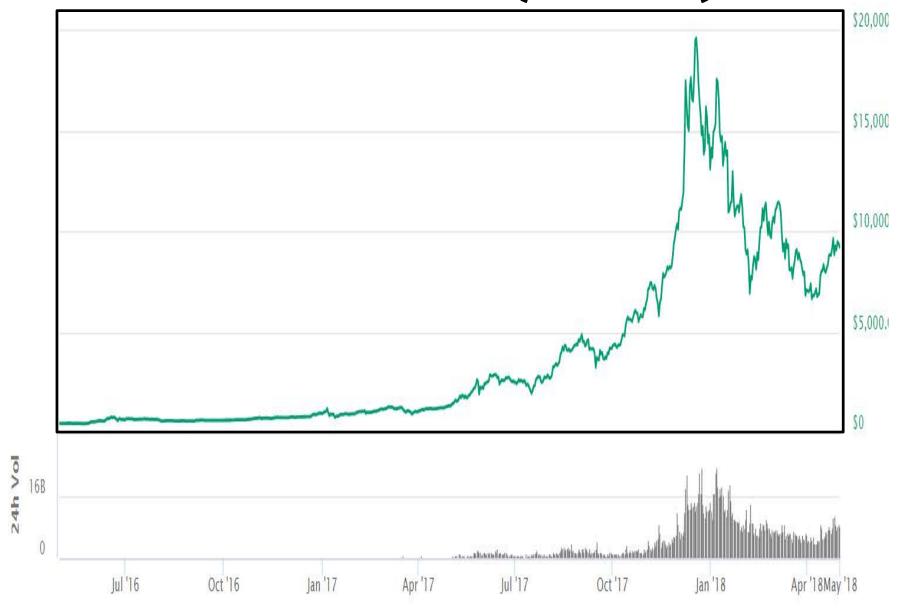




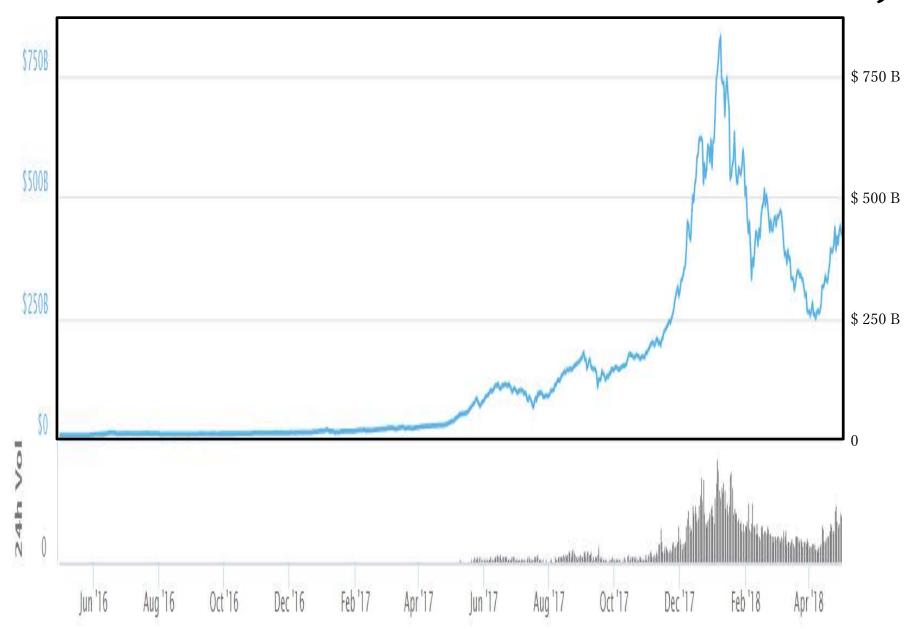
Price of Bitcoin (2013-16)



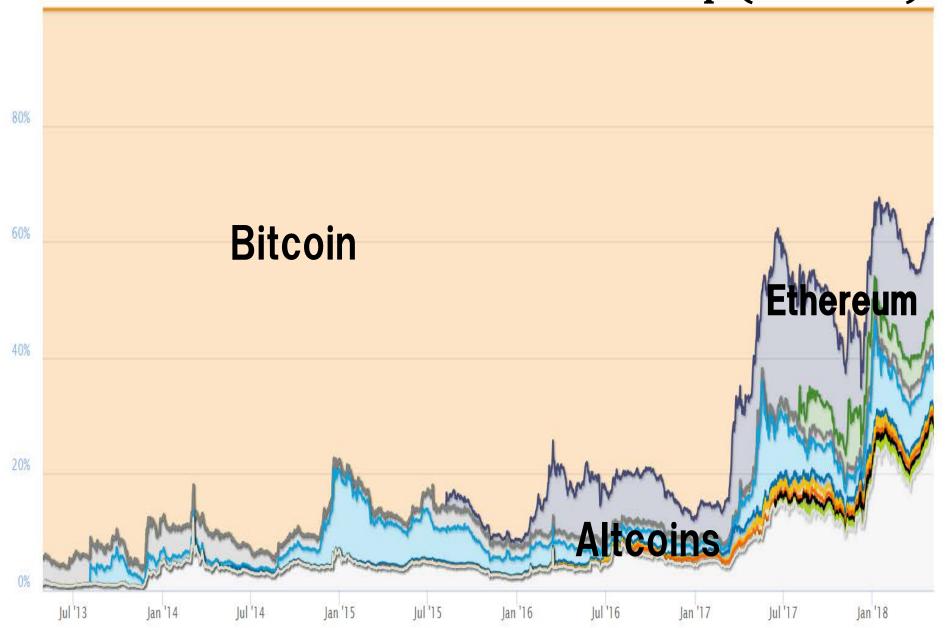
Price of Bitcoin (2016-18)



Market Capitalization of all Virtual Currencies (2016-18)

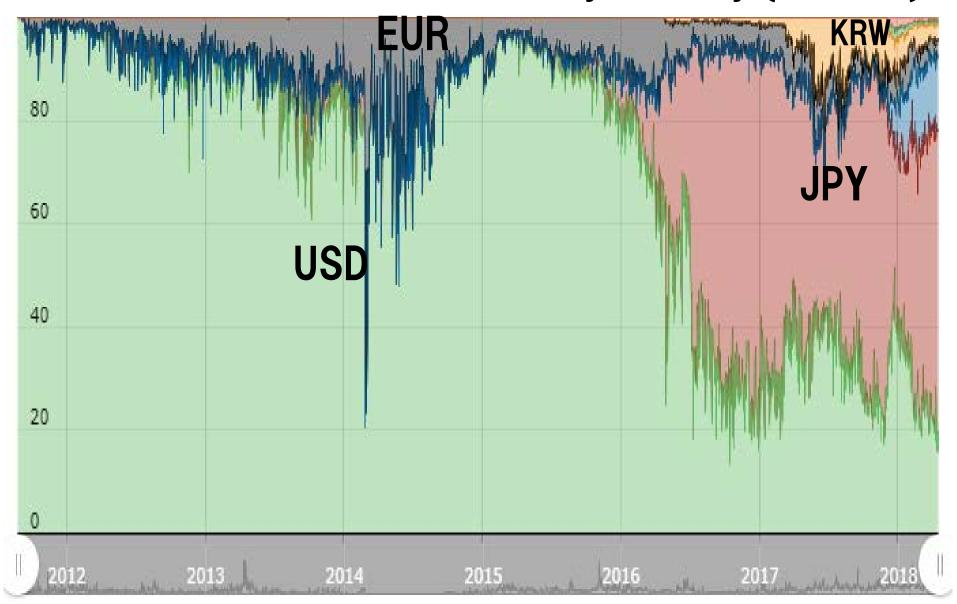


Share of Virtual Currencies Market Cap (2011-18)



(source) coinmarketcap.com

Share of Bitcoin transaction value by currency (2011-18)





ICO (Initial Coin Offering)

An initial coin offering (ICO) is a controversial means of crowdfunding centered around cryptocurrency, which can be a source of capital for startup companies.



EIP: 20 (2017-9-11)

Title: ERC-20 Token Standard

Created: 2015-11-19

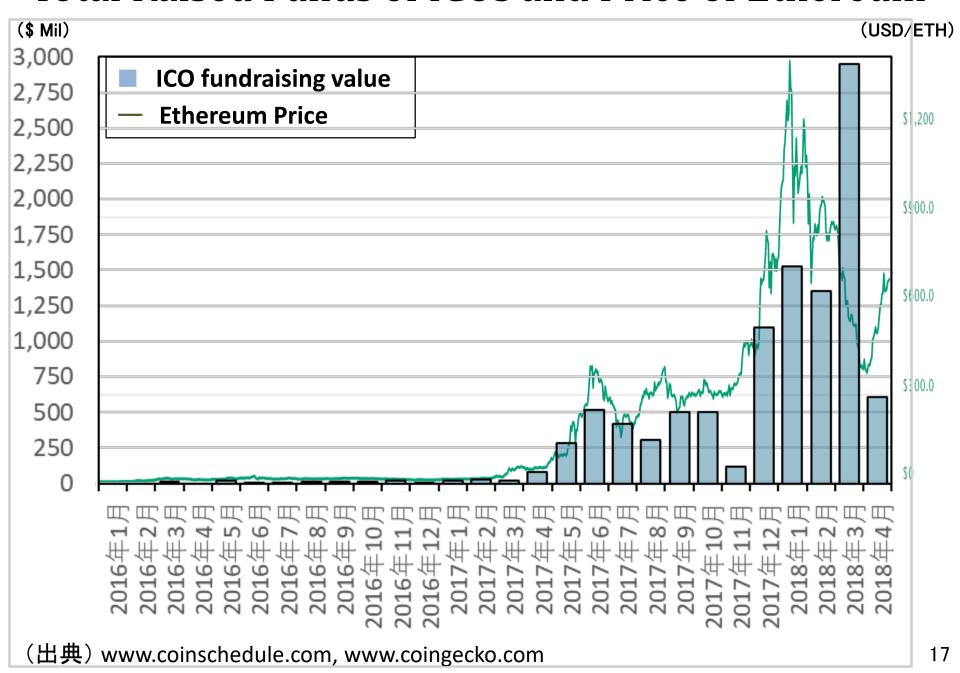
Simple Summary

A standard interface for tokens.

Abstract

The following standard allows for the implementation of a standard API for tokens within smart contracts. This standard provides basic functionality to transfer tokens, as well as allow tokens to be approved so they can be spent by another on-chain third party.

Total Raised Funds of ICOs and Price of Ethereum





ICO token rate of return by issuance time



Day One ICO Trading Results

			Day-1 Return		Current Return		
	USD	Nr	Average	Median	Average	Median	
Q1 17	\$16M	6	5.1x	3.9x	18.3x	13.3x	
Q2 17	\$892M	43	3.5x	1.9x	3.5x	1.8x	
Q3 17	\$812M	52	1.6x	1.1x	1.9x	0.8x	
Q4 17	\$341M	14	1.6x	1.1x	1.3x	1.1x	
	\$2,061M	115	2.5x	1.4x	3.2x	1.2x	

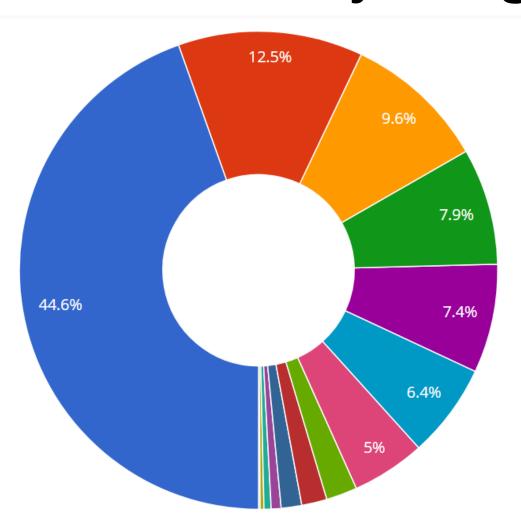
Source: TokenData.io

Price of ICO token and rate of return (change from 11th March to 19th)

		USD Raised	Month	Token Sale Price	2018-03-11		2018-03-19	
	Name				price	return	price	return
****	Sirin Labs	\$157,885,825.00	Dec 2017	\$0.470	\$0.590	1.26x	\$0.352	0.75x
*	The Bancor Protocol	\$153,000,000.00	Jun 2017	\$3.857	\$3.847	1.00x	\$2.548	0.66x
Q	QASH	\$108,174,500.00	Nov 2017	\$0.309	\$0.648	2.10x	\$0.430	1.39x
	Status	\$107,664,904.20	Jun 2017	\$0.036	\$0.135	3.77x	\$0.078	2.17x
·	Envion	\$100,012,279.00	Jan 2018	\$0.803	\$0.592	0.74x	\$0.515	0.64x
×	Kin	\$98,500,326.08	Sep 2017	\$0.000	\$0.000	2.27x	\$0.000	1.52x
E	COMSA	\$95,614,242.43	Nov 2017	\$1.000	\$0.664	0.66x	\$0.487	0.49x
❖	TenX	\$83,110,818.40	Jun 2017	\$0.805	\$1.277	1.59x	\$1.001	1.24x
*	Elastos	\$70,644,600.00	Jan 2018	\$8.920	\$47.386	5.31x	\$30.549	3.42x

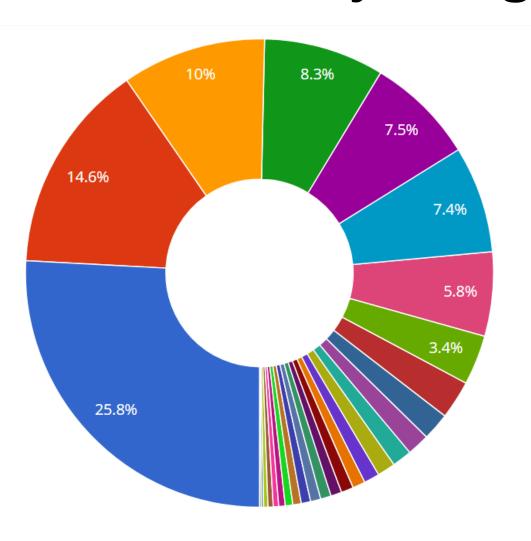
(source) https://www.tokendata.io/advanced

ICOs by Category 2016



- Infrastructure 44.6% (\$42,418,850)
- Trading & Investing 12.5% (\$11,895,650)
- Content Management 9.6% (\$9,181,357)
- Events & Entertainment 7.9% (\$7,500,000)
- Commodities 7.4% (\$7,004,367)
- Gaming & VR 6.4% (\$6,065,172)
- Gambling & Betting 5.0% (\$4,728,388)
- Identity & Reputation 2.1% (\$2,000,000)
- Payments 1.7% (\$1,629,798)
- Finance 1.4% (\$1,319,349)
- Transport 0.7% (\$635,000)
- Social Network 0.5% (\$459,000)
- Commerce & Advertising 0.3% (\$244,460)
- Art & Music 0.1% (\$100,000)

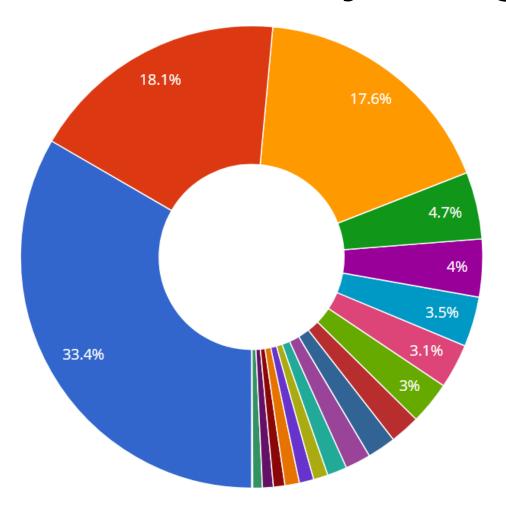
ICOs by Category 2017



- Infrastructure 25.8% (\$1,002,499,502)
- Finance 14.6% (\$564,621,336)
- Trading & Investing 10.0% (\$386,323,075.47)
- Communications 8.3% (\$322,565,362)
- Payments 7.5% (\$291,219,999)
- Data Storage 7.4% (\$286,222,856)
- Drugs & Healthcare 5.8% (\$225,326,054)
- Gaming & VR 3.4% (\$133,418,167)
- Gambling & Betting 2.7% (\$102,976,302.6)
- Commerce & Advertising 1.9% (\$73,776,158)
- Data Analytics 1.5% (\$60,000,000)
- Machine Learning & Al 1.4% (\$52,658,661)
- Social Network 1.3% (\$48,557,371)
- Privacy & Security 1.1% (\$41,491,443)
- Art & Music 0.9% (\$33,912,088)
- Identity & Reputation 0.9% (\$33,000,000)
- Legal 0.8% (\$29,368,234)
- Energy & Utilities 0.7% (\$28,434,178)



ICOs by Category 2018



- Communications 33.4% (\$954,249,600)
- Finance 18.1% (\$518,210,676)
- Trading & Investing 17.6% (\$503,354,136)
- Commerce & Advertising 4.7% (\$134,098,400)
- Payments 4.0% (\$115,575,329)
- Mining 3.5% (\$100,000,000)
- Drugs & Healthcare 3.1% (\$89,169,964)
- Machine Learning & AI 3.0% (\$85,621,376)
- Energy & Utilities 2.1% (\$60,000,000)
- Data Analytics 2.0% (\$57,017,078)
- Infrastructure 1.8% (\$50,980,000)
- Compliance & Security 1.4% (\$39,544,101)
- Privacy & Security 1.0% (\$29,092,221)
- Data Storage 1.0% (\$29,000,000)
- Supply & Logistics 1.0% (\$28,932,536)
- Travel & Tourisim 0.8% (\$22,934,006)
- Identity & Reputation 0.8% (\$21,776,392)
- Gaming & VR 0.7% (\$19,263,937)
- Recruitment 0.1% (\$2,215,535)

Hedge Funds Flip ICOs, Leaving Other Investors Holding the Bag

By Olga Kharif (Bloomberg.com, 2017-10-04 0:21 JST)

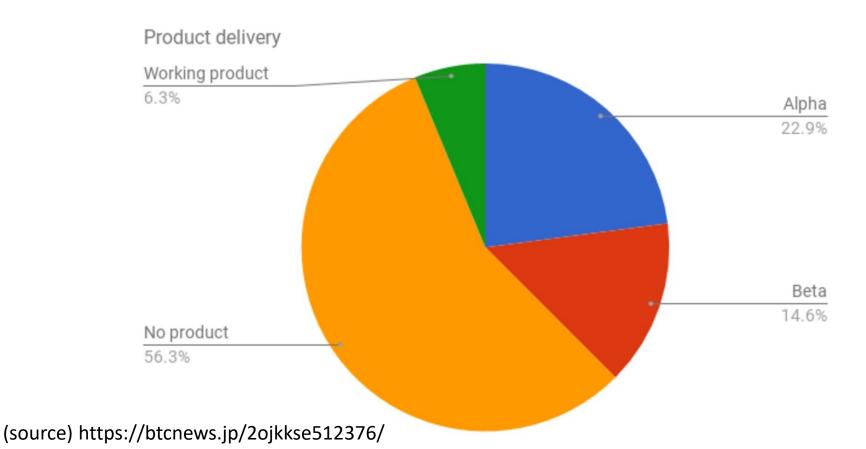
..<u>one of the surest ways to get rich quickly</u> with cryptocurrencies is to be in early on initial coin offerings.

Hedge funds are proving to be first among equals when it comes to digital token sales by technology startups, receiving preferential discounts and terms and then often cashing out.

"It's not healthy for the ecosystem, and it's pretty abusive," said Kyle Samani, a managing partner at Austin, Texas-based Multicoin Capital, which invests in ICOs. "They are getting a discount because they are a big name, and they think it's going to draw the retail investor. It's the greater fools theory — I'll buy it if there's someone who's more of a fool than me."

What happens after ICOs?

- Working product: 3 (6.25%)
- Beta product: 7 (14.58%)
- Alpha product: 11 (22.92%)
- No product: **27 (56.25%)**



Publication of examination results of SEC



U.S. SECURITIES AND EXCHANGE COMMISSION



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SEC Issues Investigative Report
Concluding DAO Tokens, a Digital
Asset, Were Securities

U.S. Securities Laws May Apply to Offers, Sales, and Trading of Interests in Virtual Organizations

FOR IMMEDIATE RELEASE 2017-131

Washington D.C., July 25, 2017— The Securities and Exchange Commission issued an investigative report today cautioning market participants that offers and sales of digital assets by "virtual" organizations are subject to the requirements of the federal securities

MAS (Singapore Monetary Authority) expresses ICO regulations





MAS clarifies regulatory position on the offer of digital tokens in Singapore

Singapore, 1 August 2017... The Monetary Authority of Singapore (MAS) clarified today that the offer or issue of digital tokens in Singapore will be regulated by MAS if the digital tokens constitute products regulated under the Securities and Futures Act (Cap. 289) (SFA). MAS' clarification comes in the wake of a recent increase in the number of initial coin (or token) offerings (ICOs) in Singapore as a means of raising funds.

- A digital token is a cryptographically-secured representation of a token-holder's rights to receive a benefit or to perform specified functions. A virtual currency is one particular type of digital token, which typically functions as a medium of exchange, a unit of account or a store of value.
- 3 ICOs are vulnerable to money laundering and terrorist financing (ML/TF) risks due to the anonymous nature of the transactions, and the ease with which large sums of monies may be raised in a short period of time. MAS' media release of 13 March 2014 had communicated that while virtual currencies per se were not regulated, intermediaries in virtual currencies would be regulated for ML/TF risks. MAS is currently assessing how to regulate ML/TF risks associated with

Chinese monetary authorities banned ICO



Public Notice of the PBC, CAC, MIIT, SAIC, CBRC, CSRC and CIRC on Preventing Risks of Fundraising through Coin Offering

Font Size <u>Big Medium Small</u> 2017年09月08日

print close

Recently, a large number of fundraising activities through issuing tokens including Initial Coin Offering (ICO) have taken place in China, giving rise to speculation and inviting suspicion of illegal financial activities. These activities have disrupted the economic and financial order. To implement the spirit of the National Financial Work Conference, protect the legitimate rights and interests of investors and manage financial risks, and in accordance with Law of the People's Republic of China on the People's Bank of China, Law of the People's Republic of China on Securities, Law of the People's Republic of China on Cyber Security, Regulation of the People's Republic of China on Telecommunication, Measures for Banning Illegal Financial Institutions and Illegal Financial Business and Activities, and other laws and regulations, the relevant matters are hereby announced as follows:

I. The Essential Attributes of Fundraising Through Coin Offering

Financing through coin offerings refer to financing bodies raising virtual currencies such as Bitcoin or Ethereum from investors through

Japanese FSA also announces caution against ICO

ICO (Initial Coin Offering) について ~利用者及び事業者に対する注意喚起~

29.10.27 金融庁

1. ICOとは

○ 一般に、ICOとは、企業等が電子的にトークン(証票)を発行して、公衆から資金 調達を行う行為の総称です。トークンセールと呼ばれることもあります。

2. 利用者の方へ(ICOのリスクについて)

- 〇 ICOで発行されるトークンを購入することには、次のような高いリスクがあります。
 - ✓ <u>価格下落の可能性</u> トークンは、価格が急落したり、突然無価値になってしまう可能性があります。
 - ✓ 詐欺の可能性
 - 一般に、ICOでは、ホワイトペーパー(注)が作成されます。しかし、ホワイトペーパーに掲げたプロジェクトが実施されなかったり、約束されていた商品やサービスが実際には提供されないリスクがあります。また、ICOに便乗した詐欺の事例も報道されています。
 - (注) I C O により調達した資金の使い道(実施するプロジェクトの内容等)やトークンの 販売方法などをまとめた文書をいいます。
- トークンを購入するに当たっては、このようなリスクがあることや、プロジェクト の内容などをしっかり理解した上で、自己責任で取引を行う必要があります。

France to create legal framework for ICO

MARCH 22, 2018 / 6:08 PM

France plans to create a legal framework for raising funds via cryptocurrencies and aims to become a leading center for offerings in bitcoin-style digital currencies, its finance minister wrote on a news website.

In an opinion piece on French website Numerama, Bruno Le Maire wrote that he had asked former central bank official Jean-Pierre Landau to draft a proposal for a legislative framework for digital currencies.

"France has every interest in becoming the first major financial center to propose an ad-hoc legislative framework for companies making an Initial Coin Offering," Le Maire wrote.

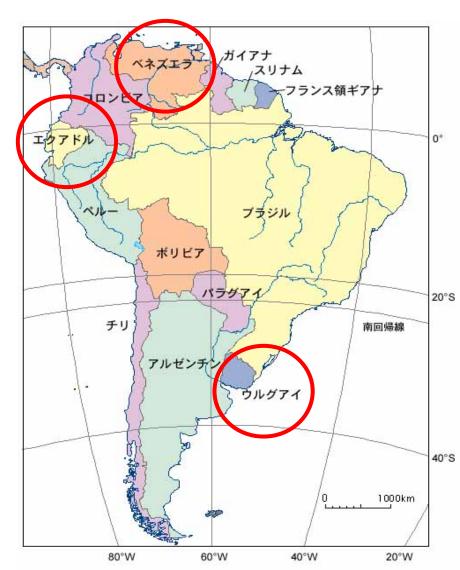


Implementation of CBDC in South America

Compared with careful consideration by central banks of developed countries, there is an area where the central banks have already implemented digital currencies.

It is South America.

In countries such as Ecuador, Uruguay, and Venezuela, the digital currency issued by the central bank is not a matter to be considered, but a reality. It is related to the fact that these countries suffered from inflation for a long time.



Venezuela raised \$ 5 billion in "Petro"

In January 2018, President Maduro of Venezuela ordered issuance of the first 100 million petro of Petro, the Central Bank digital money backed by the oil produced by the country. According to the president, one Petro is said to have the value of one barrel of Venezuela oil.

Petro was issued and distributed using blockchain technology similar to bitcoin. As it uses ERC-20 token, it can be thought of as 'ICO by country'.



Venezuela's Oil-Backed Cryptocurrency Declared Illegal -Bitcoin News

The Venezuelan parliament has declared the oil-backed cryptocurrency created by President Nicolas Maduro illegal and in violation of the country's Constitution....

「国債を発行できない国 が、なぜ仮想通貨で資金調 が、なぜ仮想通貨で資金調 が異なるのか」。金融市場 や専門家は一様にペトロに や専門家は一様にペトロに や専門家は一様にペトロに できるのか。 国債とどこ を表からは、次のような実 態が浮かび上がる。 まず、利子はつかず、満期に は科子が受け取れ、満期に は発行国が破綻しない限り ってくることもない。 国債 は利子が受け取れ、満期に は発行国が破綻しない限り ってくることもない。 国債 は利子が受け取れ、満期に は発行国が破綻しない限り ってくることもない。 国債 は利子が受け取れ、満期に は発行国が破綻しない限り ってくることもない。 国債 としているが、原油との交換は保証し でいない。 でいない。 でいない。 でいない。 でいない。 でいない。 できらに、「通貨」として の機能も不十分だ。 米ブルームバーケ通言な



(source) yomiuri shinbun

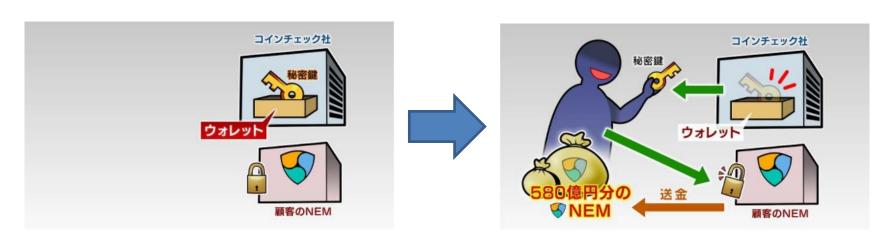


Coincheck Incident - Virtual Currency Fraud Spill

- At midnight on January 26, a virtual currency "NEM" equivalent of 58 billion yen, which one of the major virtual currency exchanges "Coincheck" had custody of customers, was illegally remitted and leaked to someone. The company confirmed the fact of the outflow after 10 hours or more and reported it to the FSA, the regulatory agency, and the police.
- Coincheck managed the virtual currency NEM of 58 billion yen which the customer purchased or exchanged with a device called "Wallet" connected to the Internet. It says that Coincheck stored the virtual currency in Wallet, but that is only a similitude, and it does not mean Coincheck wrote valuable digital data in the device. More precisely, the actual state of the virtual currency is the whole of the enormous amount of digital data written in the computers connected to the Internet. In Wallet, a character string called a secret key for authentication to rewrite the virtual currency information is stored, and transactions are carried out using digital signature generated by using this secret key.

Coincheck Incident - How was NEM stolen?

- In the theft case of this time, a secret key that should not be known to outsiders was used by the attacker without permission, and commands were issued to rewrite the virtual currency information in computers around the world. As a result, NEM was remitted to the address prepared by the attacker from the Coincheck's address.
- In other words, in this case, Coincheck managed the large amount of this virtual currency with only one secret key, and it was stolen. Coincheck managed more strictly the virtual currency other than NEM. Measures were taken to lower the risk of being stolen by separating Wallet into multiple different secret keys and not connecting the device to the Internet at all times and manually connecting only when necessary. The attacker targeted NEM that had not taken such measures.



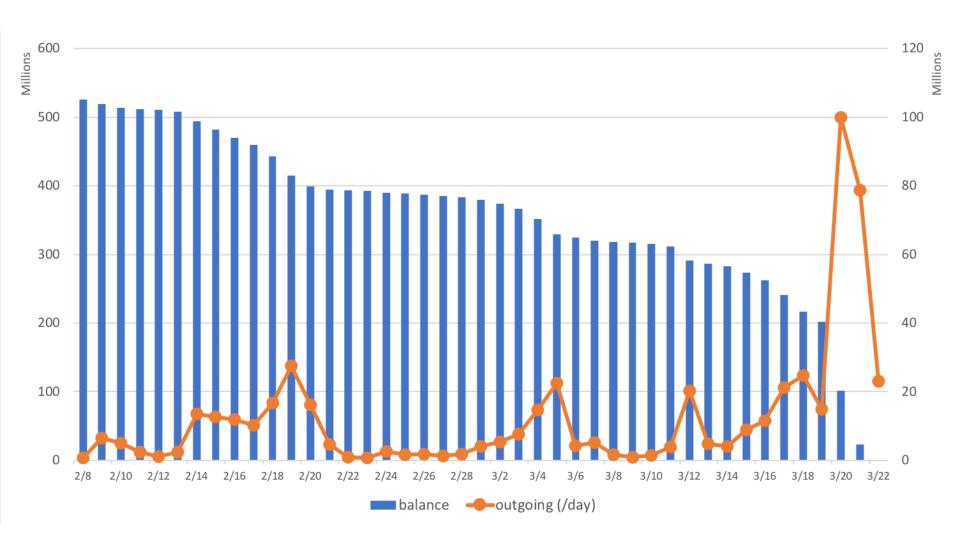
NEM transfer logs at Coincheck incident

date/time	value(XEM)	sender address	receiver address
2018/1/26 8:26	800.000	NC3BI3DNMR2	NC4C6PSLIW5
2018/1/26 4:33	1,000,000	NC3BI3DNMR2	NC4C6PSUW5
2018/1/26 3:35	1,500,000	NC3BI3DNMR2	NC4C6PSUW5
2018/1/26 3:29	92,250,000	NC4C6PSUW5	NA6JSWNF24Y
2018/1/26 3:28	100,000,000	NC4C6PSUW5	NDD7VF32WB
2018/1/26 3:18	100,000,000	NC4C6PSUW5	NB40JJCI T7W
2018/1/26 3:14	100,000,000	NC4C6PSUW5	ND77JBH6J7P
2018/1/26 3:02	750,000	NC4C6PSUW5	NBKI OYXFIVE
2018/1/26 3:00	50,000,000	NC4C6PSUW5	NDODXOWF17
2018/1/26 2:58	50,000,000	NC4C6PSUW5	NA7S775KF67
2018/1/26 2:57	30,000,000	NC4C6PSUW5	NCTWFIOOVIT
2018/1/26 0:21	3,000,000	NC3BI3DNMR2	NC4C6PSUW5
2018/1/26 0:10	20,000,000	NC3BI3DNMR2	NC4C6PSUW5
2018/1/26 0:09	100,000,000	NC3BI3DNMR2	NC4C6PSUW5
2018/1/26 0:08	100,000,000	NC3BI3DNMR2	NC4C6PSUW5
2018/1/26 0:07	100,000,000	NC3BI3DNMR2	NC4C6PSUW5
2018/1/26 0:06	100,000,000	NC3BI3DNMR2	NC4C6PSUW5
2018/1/26 0:04	100,000,000	NC3BI3DNMR2	NC4C6PSUW5
2018/1/26 0:02	10	NC3BI3DNMR2	NC4C6PSUW5

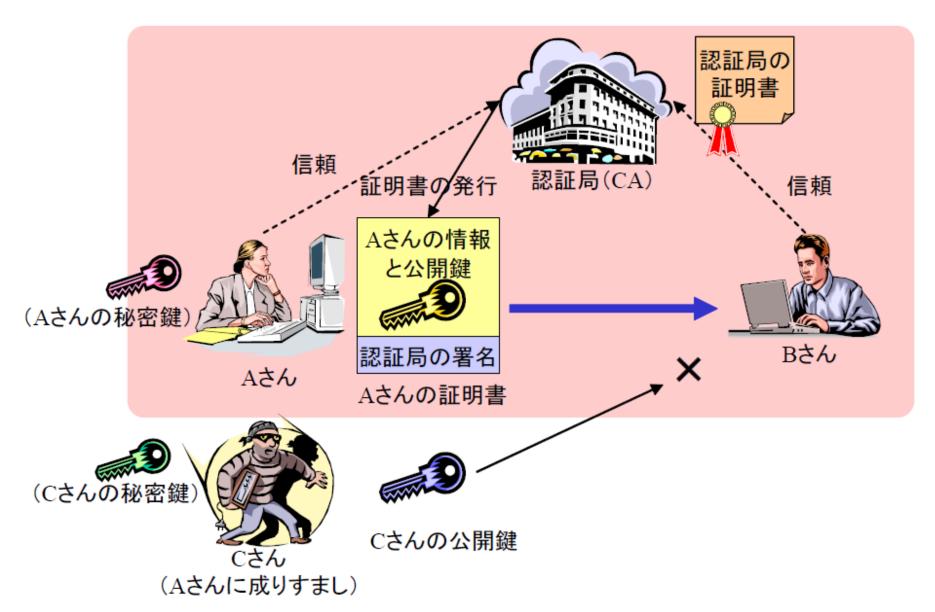
Checkpoints of Crypto-Exchange Security

- The Cryptocurrency Act in Japan does not have a sufficient mechanism for customer protection that considers that cryptocurrency exchanges keep a large amount of customer assets.
- Strengthening the legal regulation from the perspective of investor / consumer protection.
- Institutional measures using trust and insurance mechanisms.
- Disclosure of information on unified security standards, management structure and governance, and status of security.

Money Laundering of Stolen NEM



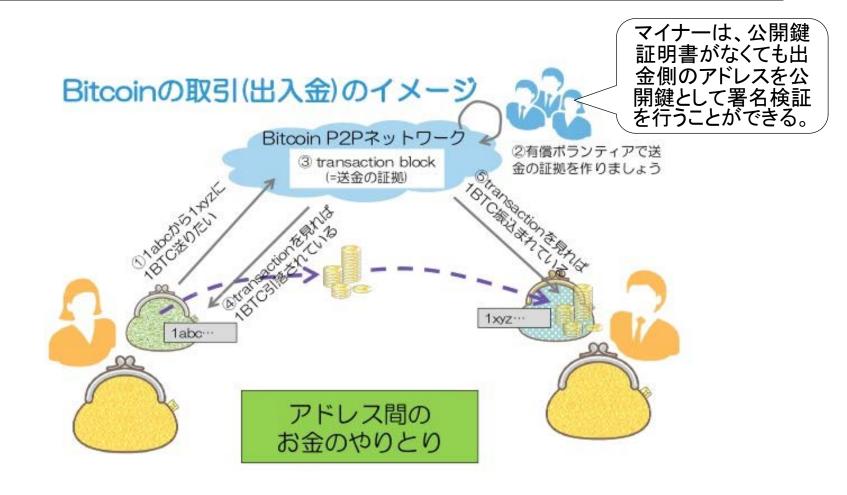
PKI and Certificate Authority="Trusted World"



(出典) IPA、「PKI関連技術解説 v1.05」、2002.3.18

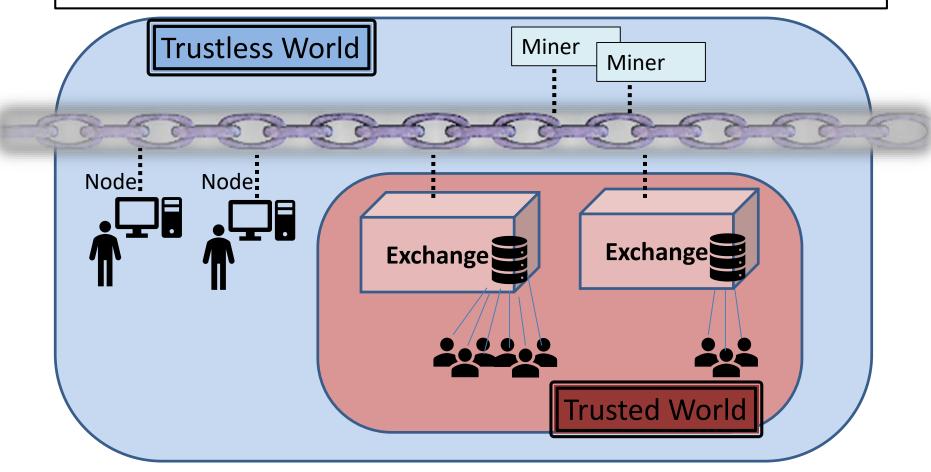
No PKI and CA for Bitcoin="Trustless World"

ビットコインの取引においては、あえてPKIを使わず、公開鍵をそのままアドレスに使用することで、信頼できる第三者機関を置かない、センターを置かないというポリシーを貫いている。



Trusted World within Trustless World

ビットコインの取引のうち、マイニングの対象となるものは、ブロックチェーンの仕組みにより安全性が担保されている。しかし、交換所での取引は交換所限りで処理され、マイニングの対象とならない。取引所経由で間接的に参加している利用者は、トラストの世界に居る。



Design philosophy of "decentralization"

- Basic design concept of bitcoin = "decentralization"
 - Policy that never creates reliable central organization.
 - The cryptocurrencies with these policies were easy used internationally, by crossing over the border and differences in law and political system.
- From the perspective of the ordinary world, which is based on the existence of reliable central institutions such as governments, central banks and courts, the world of virtual currencies is extremely fragile and dangerous.
- Since NEM also has a policy to have no reliable central organization, no one can arbitrarily rewrite information including the any government agency.
- Is it possible for the government to properly control the cryptocurrencies with such a strange philosophy?

4. Central Bank Digital Currency

The three genealogies of central bank digital currency

Among central banks, discussions of digital currency are booming, such as

- CBCC (Central Bank cryptocurrency) by BIS
- DBM (Digital Base Money) by ECB
- DFC (Digital Fiat Currency) by PBOC

Although we can not introduce all these arguments, in order to organize the flow of the discussion, it will be possible to divide them into the following three genealogies.

- 1. Central banks of developed countries began to consider CBDC inspired by the expansion of bitcoin. Discussions at BIS/CPMI are widely known, and various researches are under way, but no implementation examples yet.
- 2. Central banks in developing countries such as Africa began CBDC from the perspective of financial inclusion. Although it has been discussed mainly by African countries, China, Russia, India joined recently.
- 3. Central banks of South American countries that has been suffered by high inflation ratio, actually issue new digital currencies.

Central banks of developed countries began to consider CBDC



Bank of England policy. This paper should therefore not be reported as representing the views of the Bank of England or members of

the Monetary Policy Committee, Financial Policy Committee or Prudential Regulation Authority Board.

BIS Quarterly Review (September 2017)

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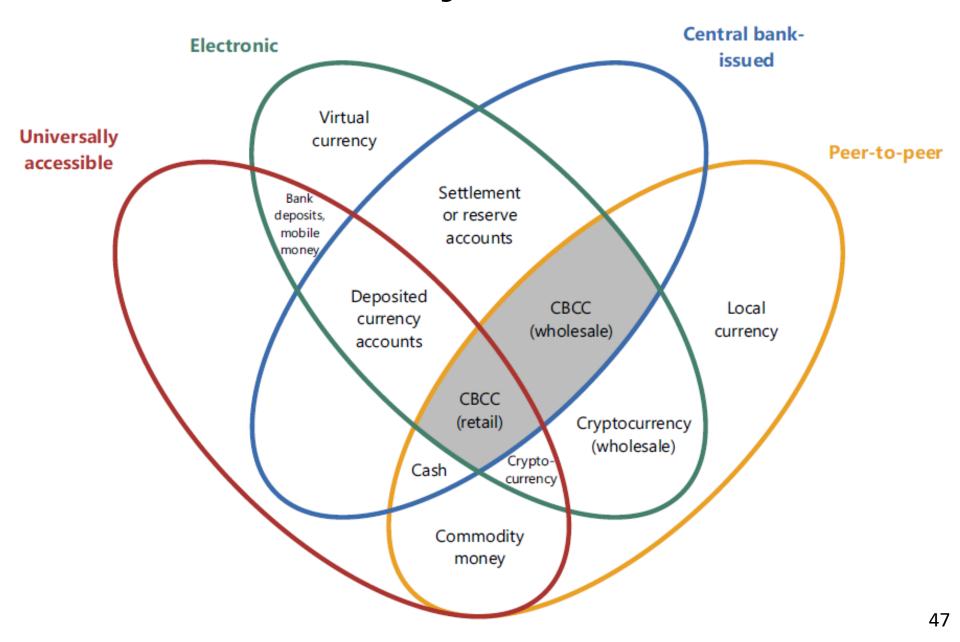
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Central bank cryptocurrencies¹

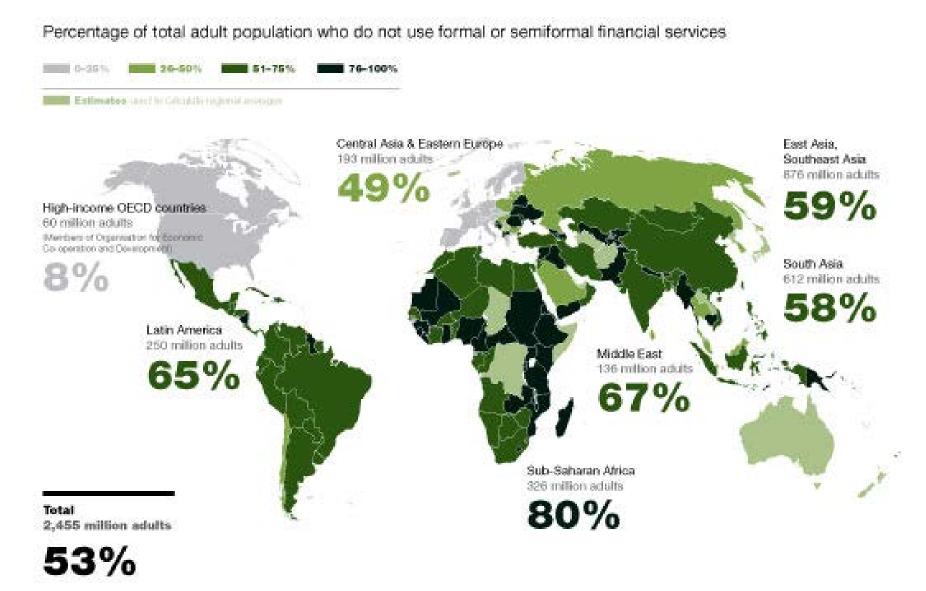
New cryptocurrencies are emerging almost daily, and many interested parties are wondering whether central banks should issue their own versions. But what might central bank cryptocurrencies (CBCCs) look like and would they be useful? This feature provides a taxonomy of money that identifies two types of CBCC – retail and wholesale – and differentiates them from other forms of central bank money such as cash and reserves. It discusses the different characteristics of CBCCs and compares them with existing payment options.

JEL classification: E41, E42, E51, E58.

Money Flower



Half of world population was unbanked



Alberto Chaia, Tony Goland, and Robert Schiff, "Counting the world's unbanked", McKinsey Quarterly, March 2010.

M-PESA realized financial inclusion



M-PESA: Kenya version electronic money By using the SMS function of mobile phones, it is used in various uses such as settlement, remittance, withdrawal.

With M - PES, there was no branch of the bank, carrying around cash, even in dangerous Kenya district A remittance and savings became possible.

図表 4: 国内送金に使用するチャネルの利用率(2006年・2009年・2013年の比較、%)

	2006	2009	2013
家族•友人	57.2	35.7	32.7
バス・マタトゥ(小型乗合バス)	26.7	4.0	5.4
送金サービス	5.3	0.4	1.9
小切手	3.8	1.2	1.3
銀行口座へ直接	9.6	3.2	4.3
郵便局	24.2	3.4	1.3
モバイルマネー	0.0	60.0	91.5

出所: FinAccess National Survey2013 (2つ以上選択可能なため、合計は100にならない)

(source) 五味佑子、「金融包摂とモバイルマネーサービスを考える」、国際通貨研究所、2015.11.17

Rapidly spreading use of mobile payment in China



Palace Museum in Beijing, China abolished the use of paper tickets.

The shift to the system in which visitors read QR codes on the signboard at the entrance with their smartphones to purchase electronic tickets by mobile payment has been completed.

The special ticket window for foreigners, the elderly and other visitors who cannot use smartphones for some reasons is prepared.

(Source) Post on Twitter <a>@livein_china

J-FSA established "Study Group of Virtual Currency" in April, 2018

「仮想通貨交換業等に関する研究会」の設置について

2018年3月8日金融 庁

1. 趣旨

仮想通貨に関しては、マネーロンダリング・テロ資金供与対策に関する国際的要請がなされたことや、国内で当時世界最大規模の仮想通貨交換業者が破綻したことを受け、2017年4月より、仮想通貨と法定通貨等の交換業者に対し、登録制を導入し、本人確認義務等の導入や説明義務等の一定の利用者保護規定の整備を行った。

その後、コインチェック株式会社が、不正アクセスを受け、顧客からの預かり資産が外部に 流出するという事案が発生したほか、立入検査により、みなし登録業者や登録業者における 内部管理態勢等の不備が把握された。また、仮想通貨の価格が乱高下し、仮想通貨が決済手段 ではなく投機の対象となっている中、投資者保護が不十分であるとの指摘も聞かれる。さらに、 証拠金を用いた仮想通貨の取引や仮想通貨による資金調達など新たな取引が登場していると いう動きも見られる。

こうした状況を受け、仮想通貨交換業等をめぐる諸問題について制度的な対応を検討するため、 「仮想通貨交換業等に関する研究会」を設置する。