



The Bitcoin News

State-Issued Digital Currencies: The Countries Which Adopted, Rejected or Researched the Concept

July 19, 2018

On July 5, Germany rejected the idea of issuing a central bank-issued digital currency (CBDC) — the Ministry of Finance deemed it would be “too risky” to implement one.

The concept of CBDCs, or national digital currencies — the scenario in which the trend of digital currencies gets adopted by a federal regulator, essentially under its rules, with the central bank issuing digital fiat money, rather than cryptocurrencies in their most popular, decentralized form and becomes not only a regulator, but clients’ account holder as well — has attracted many governments across the world. Some of them have already implemented the idea, some keep researching, while others — like Germany — have dismissed the idea altogether. Here’s a list of those countries along with their reasonings for/against CBDCs.

Senegal

Senegal is one of the earliest adopters of a national digital currency, having issued its blockchain-based eCFA — named after CFA franc, the regular Senegalese currency — in December 2016.

Following the concept of CBDCs, eCFA is fully dependent on the central banking system and can only be issued by an authorized financial institution, although it has been developed separately: eCFA was created as a result of the collaboration between local bank Banque Régionale de Marchés (BRM) and eCurrency Mint Limited, an Ireland-based startup that assists central banks in creating their own digital fiat currencies.

Thus, eCFA was designed to be distributed alongside paper money as legal tender. In a joint statement, BRM and eCurrency Mint claimed:

“The eCFA is a high-security digital instrument that can be held in all mobile money and e-money wallets. It will secure universal liquidity, enable interoperability and provide transparency to the entire digital ecosystem in WAEMU.”

Indeed, if proven efficient, the eCFA might be rolled-out to other West African Economic and Monetary Union (WAEMU) member states, including Cote d'Ivoire, Burkina Faso, Benin, Togo, Mali, Niger and Guinea-Bissau.

Tunisia

In 2015, Tunisia became the first country in the world to issue a blockchain-based national currency called eDinar — also known as Digicash and BitDinar — as Monetas, a Switzerland-based software company (the CEO of which has been involved in the Tezos scandal), participated in integrating the technology into the digital version of Tunisia's Dinar, which was created earlier. Similar to cash money, eDinar's distribution and issuance is overviewed by a governmental body — La Poste, or La Poste Tunisian (LPT). Monetas CEO Johann Gevers commented on the launch:

“The Monetas deployment in Tunisia is the first application for a full ecosystem of digital payments. With the La Poste Tunisienne Android application powered by Monetas, Tunisians can use their smartphones to make instant mobile money transfers, pay for goods and services online and in person, send remittance, pay salaries and bills, and manage official government identification documents.”

Just like with cryptocurrencies, there are transaction fees integrated into the eDinar system, albeit they are insignificant as the maximum amount is capped at one Dinar.

The Marshall Islands

The Marshall Islands — with the population of roughly 53,000 people — being a presidential republic in free association with the United States, has been using the U.S. dollar (USD) as its official currency. However, since March 2018, it has implemented another legal tender: its own cryptocurrency dubbed “sovereign” (SOV). The currency was first introduced in late February, when the government — the island has no central bank — passed the Declaration and Issuance of the Sovereign Currency Act. David Paul, minister-in-assistance to the president of the Marshall Islands, told Reuters at the time:

“As a country, we reserve the right to issue a currency in whatever form it is, whether in digital or fiat form.”

Further, Paul added that SOV is made collaboratively with Israeli fintech startup Neema and will be publicly released through an Initial Coin Offering (ICO), with a separate presale. Neema CEO Barak Ben-Ezer told the press that “[SOV] is completely decentralized and the government cannot control the money supply [after the ICO].”

The government has reportedly limited the SOV supply to 24 million tokens in order to avoid inflation.

Venezuela

In February 2018, the government of Venezuela launched a national cryptocurrency called the Petro, or Petromoneda. It was first announced in December 2017 via TV, when Venezuelan president Nicolas Maduro declared that his government was planning to issue a cryptocurrency backed by the country's oil, gold and mineral reserves. In January, he elaborated, stating that 100 million petros backed by an equivalent number of barrels of oil was going to be issued “soon.”

According to Maduro, a number of fiat currencies, including the Russian ruble, the Chinese yuan, Turkish lira and the euro are freely convertible with Petro.

The currency was designed to avoid the U.S. sanctions that negatively impacted the local economy — as Maduro put it, to fight the financial “blockade” erected by the U.S. president Donald Trump’s administration. Consequently, on March 19, Trump issued an order to effectively restrict American investors from participating in the Initial Coin Offering (ICO) of the Petro, which started on February 20. In March, Nicolas Maduro claimed that a total of \$5 billion dollars was raised during the presale period — which would make it one of the largest ICOs to date, putting the \$2 billion Telegram ICO and \$1 billion token sale of EOS behind it. Moreover, on February 21, Maduro declared that the country was preparing to launch yet another, “even more powerful” cryptocurrency called Petro Gold, this time backed by Venezuela’s reserve of precious metals.

Petro allegedly has ties with Russia, as, according to anonymous sources cited in a Time article, the cryptocurrency has been receiving Russian support since 2017, particularly due to the appeal of bypassing western sanctions also imposed on the country. As the Russian state bank allegedly told the publication, “People close to Putin, they told him this is how to avoid the sanctions.”

On March 27, those claims were denied by Konstantin Vyshkovsky, the head of the Russian Finance Ministry’s state debt department.

In more recent news, Maduro announced the launch of a Petro-funded crypto bank to support initiatives from youth and students, while Venezuelan Minister of Habitat and Housing Ildemaro Villarroel declared that Petro will be used to fund the construction of houses for the homeless.

Ecuador

Ecuador is one of the pioneering countries in terms of CBDC adoption. The country announced its own electronic currency (dinero electrónico, or DE) back in 2014. By February 2015, it was acting as a functional means of payment, allowing qualified users to transfer money via a mobile app.

The Ecuadorian government stressed that the CBDC was issued to support its dollar-based monetary system — Ecuador started to accept U.S. dollars as legal tender in September 2000, hoping to achieve economic growth — not to overthrow it. Economist Diego Martinez, a delegate of the President of the Republic to the Board of Regulation and Monetary and Financial Policy, told CNBC that the dinero electrónico would help in reducing both poverty levels and various expenses for the government, as the country was spending more than \$3 million to exchange deteriorating old notes for new dollars annually.

Nevertheless, the currency ultimately failed. On March 26 of this year, local newspaper El Universo reported that the system would be completely deactivated on March 31, closing all the accounts altogether, as in December 2017, Ecuador’s National Assembly passed legislation to abolish the central bank electronic money system and outsource e-payment systems to private banks.

As Lawrence H. White, a professor of economics at George Mason University, writes in his article for the Cato Institute, the main reason for that was the inability to attract enough users — a total of 402,515 accounts were opened, while only 41,966 of which were ever used to

purchase goods or to make payments; 76,105 were used only to upload and download money; and the remaining 286,207 accounts (approximately 71 percent) that were opened remained inactive for the whole time, essentially because people were reluctant to accept another currency — being used to U.S. dollars — and didn't trust the BCE as an institution.

Estonia

Estonia had been considering launching its CBDC called Estcoin. However, it gave up the idea after facing EU regulators' criticism. The concept was first introduced by the president of the Estonian e-residency program, Kaspar Korjus. The currency was supposed to help Estonian citizens notarize their documents remotely from anywhere in the world, among other things. However, once the news reached Mario Draghi, the president of the Euro Central Bank, he swiftly pointed out that such currencies are not allowed within the Eurozone legislation. He declared:

“No member state can introduce its own currency; the currency of the eurozone is the euro.” After Draghi's statement, the government of Estonia reportedly stopped the development of Estcoin, which has recently been confirmed by Siim Sikkut, a representative of the country's IT strategy. Nevertheless, the Estcoin tokens will be used as “an incentive” inside the “e-residency community,” Sikkut added.

Switzerland

Although Switzerland has been named the most crypto and blockchain-friendly country in Europe, it recently shared its doubts regarding the usefulness of CBDCs. On June 21, board director of the Swiss National Bank (SNB) Thomas Moser stated that cryptocurrencies and blockchain are not innovative enough to consider issuing a state-backed digital currency. Speaking at the Crypto Valley blockchain conference in Zug — also known as the “Crypto Valley” — Moser compared blockchain in its present condition with the “useless innovation” of CDs, arguing that cryptocurrencies merely imitate already existing products — such as “digital shares, bonds, vouchers”:

“Something similar has to happen with Bitcoin. People will only switch to something new if it works better or is cheaper.”

Prior to that, in May, the Federal Council of the Government of Switzerland requested a report on the risks and opportunities of introducing a government-backed digital currency. The idea to develop a national cryptocurrency was proposed in February by Romeo Lacher, chairman of the Swiss stock exchange SIX, when he argued that “an e-franc under the control of the central bank would create a lot of synergies — so it would be good for the economy.”

Hong Kong

Hong Kong has a much clearer position regarding CBDCs compared to mainland China: On May 30, its government issued a press release stating that Hong Kong will not issue a central bank digital currency (CBDC) in the near future, citing the existence of an already efficient payment infrastructure. The statement was made by Joseph Chan, the Acting Secretary for Financial Services and the Treasury in the Legislative Council.

Essentially, Chan claimed that the Committee on Payments and Market Infrastructures (CPMI) — an agency comprised of members from the People's Bank of China (PBoC) and the Hong

Kong Monetary Authority (HKMA) — and the Markets Committee (MC) of the Bank for International Settlements had been jointly studying the potential effects of CBDC. Conclusively, their report showed that “currently proposed implementations of CBDC for wholesale payments look broadly similar to, and not clearly superior to, existing infrastructures.”

The paper also argued that any benefits of CBDC may be limited due to the existence of efficient private retail payment products, essentially making CBDC “a subject which requires further study and more proof-of-concept work to ascertain its feasibility for payment applications.”

Japan

In April, the central bank of Japan, the country where Bitcoin is recognized as an official means of payment, dismissed the idea of CBDC, as Deputy Governor Masayoshi Amamiya declared that such currencies can have a negative impact on the existing financial system.

The Deputy Governor noted that CBDCs are “[stimulating] global discussion on to what extent central banks should provide their payment and settlement infrastructures to society,” noting:

“The issuance of central bank digital currencies for general use could be analogous to allowing households and firms to directly have accounts in the central bank. This may have a large impact on the aforementioned two-tiered currency system and private banks’ financial intermediation.”

Germany

The most recent country to dismiss the idea of CBDC is Germany. On July 5, the German Federal Ministry of Finance declared that issuing a CBDC would be too risky to implement, in a response to Green Party MP Gerhard Schick.

“So far there are no convincing reasons for issuing digital central bank money for a wide range of users in Germany and the eurozone,” business newspaper Handelsblatt quoted the Ministry as saying.

The Ministry further argued that the potential benefits of a CBDC — namely high-speed bank transfers — could also be achieved in other ways. In short, the agency claimed that CBDCs involve “a number of risks that are not well understood.”

Other fears voiced by the Ministry included a central bank jeopardizing its independence — as it would allegedly get a stronger position in the financial system by issuing a cryptocurrency — and the crisis scenario in which the central bank hits bankruptcy faster and on a larger scale due to lower transaction costs, along with the classic ones: AML compliance and terrorist funding concerns.

Experimenters

Uruguay

Uruguay has evidently made the most effort in terms of testing the concept of CBDC among the experimenting countries. In November 2017, the central bank of Uruguay (BCU) presented a six-month pilot plan for the issuance and use of the digital version of the Uruguayan peso. The agency stressed that “[it] is not a new currency, it is the same Uruguayan peso that, instead of having a physical support, has a technological support.”

According to the scheme — the starting date of which was not specified in the press release — a total of 10,000 mobile phone users of ANTEL, the state-owned telecommunications company, would download an app with an integrated digital wallet. The first issue of digital tickets consists of 20 million Uruguayan pesos, the report notes.

Other players participating in the pilot scheme, apart from BCU and ANTEL, are RGC, the system provider; IBM, for storage support, circulation and control; IN Switch, for user management and transfers; and RedPagos, for ticketing.

The head of the BCU elaborated on the plan, adding that Uruguay “is very much in the vanguard” of virtual currencies development:

“It will be a process of trial and error, success and failures[...] This must have the same soundness as normal currency, but sooner or later it will be implemented in Uruguay.”

Dubai

In September 2017, the government of Dubai announced that Emcredit, a subsidiary of Dubai Economy, will collaborate with the U.K.-based startup Object Tech Grp Ltd to create “an encrypted digital currency” called emCash. However, no specific timeline was announced, indicating that the project is in its draft stage.

According to Ali Ibrahim, Deputy Director General of Dubai Economy, the token will be considered legal tender “for various government and non-government services, from their daily coffee and children’s school fee to utility charges and money transfers.”

The official press release cited “faster processing, improved delivery time, less complexity and cost” as cryptocurrency’s potential advantages.

Iran

In April 2018, days after banning local banks from all crypto dealings, an Iranian government minister confirmed that an experimental model of a domestic digital currency had been developed. As per Reuters, Information and Communications Technology (ICT) Minister Mohammad Javad Azari-Jahromi stated:

“The central bank’s [ban] does not mean the prohibition or restriction of the use of the digital currency in domestic development[...] Last week, at a joint meeting to review the progress of the [domestic cryptocurrency] project, it was announced that the experimental model was ready.”

Notably, Azari-Jahromi did not clarify whether the locally-developed digital currency will eventually be made available to the public, nor whether it will be issued by Post Bank — 51 percent of which is owned by the government — or by another state body.

The news about the experimental Iranian cryptocurrency could be tied to a report suggesting that Iran and Russia could start using cryptocurrencies to avoid Western sanctions. In May, Mohammad Reza Pourebrahimi, the head of the Iranian Parliamentary Commission for Economic Affairs, referred to cryptocurrencies as a promising way for both countries to avoid U.S. dollar transactions, as well as a possible replacement of the SWIFT interbank payment system.

Singapore

Singapore has reportedly advanced in experimenting with a central bank digital currency (CBDC), although it's not likely to go public. In June 2017, the Monetary Authority of Singapore (MAS) released a report regarding the so-called 'Project Ubin,' a blockchain-powered plan to put "tokenized form of the Singapore Dollar (SGD) on a

[private Ethereum blockchain]." The project is a collaboration between the central bank and blockchain consortium R3, focused on the development of a blockchain pilot to facilitate cross-border payments.

However, in January 2018, Ravi Menon, the managing director of the MAS, criticized the idea of CBDCs, especially in the public context. In an interview with the Financial Times, he argued:

"Why would the central bank want to [issue digital currency to the non-bank public]? If there's any sense of nervousness about the banks, you will have a bank run; everybody is going to go into the central bank [with their deposits][...] And, if people placed their deposits with central banks, who's going to extend credit?"

Canada

In November 2017, the Bank of Canada published a report titled "Central Bank Digital Currency: Motivations and Implications," which was co-authored by its Currency Department employee. Although such a paper does not necessarily represent the official stance the Bank of Canada takes in regard to CBDC, it clearly demonstrates the agency's interest.

In short, the document argued that, as society moves toward becoming cashless, the central bank's essential revenue source, seigniorage — i.e., profits made from printing more money — becomes compromised. CBDC, in turn, allows it to maintain seigniorage through creating digital cash. Moreover, the Bank of Canada report mentioned the lack of transaction fees and financial inclusion as other potential benefits of CBDC but highlighted anonymity as "undesirable for central bank digital currency." The paper concluded that more research is needed to decide if the Bank of Canada should implement a CBDC.

China

The People's Bank of China (PBoC) has been researching the concept of CBDC for quite some time — a specific research institute named Digital Currency Research Lab was established for this very purpose. However, it seems that the country is in no hurry to issue a national digital currency. In March, governor of the PBoC Zhou Xiaochuan, expressed the agency's cautious position regarding the matter:

"If [blockchain technologies] spread too rapidly, it may have a big negative impact on consumers. It could also have some unpredictable effects on financial stability and monetary policy transmission."

Zhou also declared that digital currency will ultimately diminish cash circulation, while stressing that the PBoC "must prevent substantial and irreparable damages" to the domestic economy. Nevertheless, according to China Daily, he also claimed that the development of digital currency is "technologically inevitable."

Most recently, in June, the Digital Currency Research Lab at the PBoC filed a new patent for a digital wallet that would allow users to track their transaction histories.

Israel

Israel has been considering issuing a national cryptocurrency — a digital shekel that corresponds in value to physical shekels — for a considerable amount of time, with the first reports regarding the matter starting to emerge in December 2017.

Back then, sources close to the Finance Ministry, suggested that issuing a digital currency would target Israel's black market, which constitutes around 22 percent of the country's gross domestic product. Additionally, the Knesset — the legislative branch of the Israeli government — has been planning to reduce the amount of physical cash in the economy for the past few years.

The government has reportedly prepared the 'Economic Arrangements Bill,' which, if passed, would create a separate panel for the Bank of Israel to consider creating the digital shekel.

Sweden

In December 2017, Sweden's Central Bank (Riksbank) published an action plan for the second stage of the "e-Krona" project. An "e-Krona" is defined as "a general electronic means of payment" and as a "complement to cash." The paper also notes that the Riksbank "has not yet taken a decision on whether to issue an e-Krona and the aim is not for an e-Krona to replace cash."

Indeed, the main reason for Riksbank to release "e-Krona" is the steeply dropping popularity of cash in the country. The central bank has conducted a number of researches— which are no longer available online, for some reason — the first of which was issued back in September 2017.

In short, if implemented, e-Krona could operate under two systems: a value-based one and a registered-based one. The latter version would have digital currency balances stored in accounts on a central database — potentially backboneed by blockchain — while a value-based e-Krona would be stored separately on "deposited currency accounts." The prospect of Riksbank releasing a CBDC is considerably high, given the pace at which it moves to become the world's first cashless society.

Norway

According to May reports, Norway's central bank, Norges Bank (NB) is considering developing its own digital currency as a supplement to cash to "ensure confidence in money and the monetary system."

NB's working group prepared research on various aspects of CBDCs. Its authors pinpointed at least three possible CBDC applications: the introduction of a reliable alternative to deposits in private banks, a suitable legal tender as a supplement to cash and an independent backup solution for e-payment systems. Norges Bank Governor Øystein Olsen elaborated:

"A decline in cash usage has prompted us to think about whether at some future date a number of new attributes that are important for ensuring an efficient and robust payment system and confidence in the monetary system will be needed."

The report states that a CBDC could provide customers with an alternative means to store assets. Norges bank also stressed that CBDC must not hinder the system of providing credit services,

adding that it will continue to print cash as long as there is demand for it. Notably, the working group has only completed the initial phase of studying CBDCs:

“It is too early to conclude whether Norges Bank should take the initiative in introducing a CBDC. The impacts of a CBDC — and the socio-economic cost-benefit analysis — will depend on the specific design. The design, in turn, will depend on the purpose of introducing a CBDC.”

Thailand

On June 5, the Bank of Thailand (BoT) joined the ranks of countries considering issuing their own cryptocurrencies, as BoT governor Veerathai Santiprabhob revealed details of a new project in which the central bank teamed up with other Thai banks to develop a “new way of conducting interbank settlement” using a CBDC.

According to the BoT, releasing its own cryptocurrency would reduce the transaction costs and validation time “due to less intermediation process needed compared to the current systems.”

Still, Santiprabhob noted that the bank is not prioritizing the adoption of CBDCs, but rather focusing on exploring the potential of the technology. The bank’s governor pinpointed that their financial institution is not only a “facilitator of innovation,” but a “regulator to safeguard financial stability” as well:

“Like other central banks, our goal is not to immediately bring CBDC into use, but rather to explore its potential and implications for back office operations.”

The UK

In May, the Bank of England indicated its stance on CBDC in two staff working papers. First, the central bank issued research analyzing various risks related to CBDCs. The paper notably found that, after initial approximation, there was no reason to believe that introducing a CBDC would have a negative effect on private credit or on total liquidity provision to the economy.

Another working staff paper suggests that CBDC would endanger the current profitable business model used by commercial banks — namely the storage of individuals’ and corporations’ cash holdings. Allowing the “radical idea” that the public could be given the option to store their money at the central bank in the form of central bank digital currencies and transfer their money seamlessly, using digital wallets, the research warns that such a scenario could have critical consequences for the commercial banking sector:

“Banks may be subject to an outflow of retail deposits, in particular in a scenario of financial stress.”

On May 25, the governor of the Bank of England, Mark Carney, declared that he was open-minded about the prospect of implementing a CBDC, but stressed that any CBDC adoption would not happen any time soon.