



Senate Fiscal Agency
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Senate Bill 888 (Substitute S-1 as passed by the Senate)
Sponsor: Senator Jim Ananich
Senate Committee: Economic and Small Business Development
House Committee: Financial Services

Date Completed: 7-28-22

RATIONALE

Cryptocurrency is an electronic form of exchange that is independent of any central authority, such as a government or a bank. A blockchain is a public and immutable ledger of all cryptocurrency transactions. As of June 2022, there are believed to be roughly 19,000 different cryptocurrencies, and dozens of blockchain platforms, in existence. Some believe that poor monetary policy is a key player in the perpetuation of poverty, and that the welcoming of cryptocurrency in Michigan would make the State attractive to both human and financial capital. Accordingly, it has been suggested that a commission be created to investigate blockchain and cryptocurrency and to recommend further action for cryptocurrency expansion in Michigan.

CONTENT

The bill would enact the "Blockchain and Cryptocurrency Commission Act" to create the "Blockchain and Cryptocurrency Commission" and to prescribe its membership and duties, including the investigation of blockchain and cryptocurrency to develop a master plan of recommendations for fostering an expansion of blockchain technology and the cryptocurrency industry in Michigan.

Membership

Specifically, the bill would create the Blockchain and Cryptocurrency Commission in the Department of Licensing and Regulatory Affairs (LARA). "Blockchain" would mean a mathematically secured, chronological, and decentralized ledger or database. "Cryptocurrency" would mean digital currency in which encryption techniques are used to regulate the generation of units of currency and verify the transfer of funds, and that operates independently of a central bank.

The Commission would have to consist of the following members:

- One individual who was appointed by the Speaker of the House of Representatives.
- One individual who was appointed by the Minority Leader of the House of Representatives.
- One individual who was appointed by the Senate Majority Leader.
- One individual who was appointed by the Senate Minority Leader.
- The Attorney General or his or her designee.
- The Directors of the Departments of Treasury and Technology, Management, and Budget, or their respective designees.
- One individual from a cryptocurrency company that was appointed by the Governor.
- One individual from a cryptocurrency exchange who was appointed by the Governor.
- One individual from a company with a business model that used block chain for noncryptocurrency transaction purposes who was appointed by the Governor.
- Two individuals from institutions of higher education in the State who were appointed by the Governor.

- One individual who was appointed by the chair of the House of Representatives Financial Services Committee.
- One individual who was appointed by the chair of the Senate Insurance and Banking Committee.
- One individual who was appointed by the chair of the House of Representatives Regulatory Reform Committee.
- One individual who was appointed by the chair of the Senate Regulatory Reform Committee.

The first members of the Commission would have to be appointed within 45 days after the bill's effective date. Commission members would serve two-year terms or until a successor was appointed. If a vacancy occurred on the Commission, it would have to be filled for the unexpired term in the same manner as the original appointment. The appointing official could remove a member of the Commission who he or she appointed for incompetence, dereliction of duty, malfeasance, misfeasance, or nonfeasance of office, or any other good cause.

The bill would require the Governor to call the first meeting of the Commission. At the first meeting, the Commission would have to elect a member as a chairperson and could elect other offices that it considered necessary or appropriate. The Commission would have to meet at least quarterly, or more frequently at the call of the chairperson or at the request of nine or more members.

A majority of the members of the Commission would constitute a quorum for transacting business. A vote in favor by nine of the members serving would be required for any Commission action. The Commission would have to comply with the Open Meetings Act and the Freedom of Information Act. A member of the Commission would not be entitled to compensation for service, but LARA could reimburse a member for actual and necessary expenses incurred while serving.

Duties

The Commission would have to do all the following:

- Investigate blockchain and cryptocurrency to develop a master plan of recommendations for fostering an expansion of blockchain technology and the cryptocurrency industry in the State.
- Take input from a broad range of stakeholders with a diverse range of interests affected by State policies governing emerging technologies, privacy, business finance, the courts, the legal community, and State and local government.
- Within one year after all appointments were made, submit a report to the Senate and House of Representatives that contained the result of the Commission's investigation and its master plan of recommendations to foster a positive blockchain and cryptocurrency economic environment, together with drafts of legislation needed to affect the recommendations.

In addition, the Commission would have to examine all the following:

- The feasibility, validity, risks, and admissibility, including privacy risks and benefits of using blockchain technology in State and local government and Michigan-based businesses.
- The need for modifications to the definition of blockchain in the bill and to other laws of the State to affect the appropriate deployment of blockchain technology.
- The impact of the proliferation of the cryptocurrency industry on State revenues and the need to restructure the State's tax framework, including the advisability of taking cryptocurrency transactions as part of the sales tax.
- The advisability of government agencies and relevant business enterprises, including, but not limited to, cannabis retail stores accepting payment in cryptocurrency.
- The feasibility of regulating the energy consumption associated with cryptocurrency.
- The best practices for enabling blockchain technology and cryptocurrency transactions to benefit the State, Michigan-based businesses, and residents of the State, including an examination of historical barriers to entry and participation in emerging technologies and markets for individuals underrepresented in these industries and markets.

- The State agencies best equipped to provide oversight of blockchain technology and the cryptocurrency industry.
- Any other related topic that the Commission chose to examine in relation to blockchain or cryptocurrency.

For government use, the Commission's examination would have to include consideration of government records and delivery of services, consideration of court proceedings, and consideration of statewide registries including for marijuana and opiates, election nominating petitions, voter records, and election results. For businesses use, the Commission's examination would have to include consideration of the advisability of allowing corporate records to be maintained using blockchain technology, including any security requirements necessary to ensure the accuracy of the corporate records.

BACKGROUND

Cryptocurrencies are electronic forms of monetary exchange that are independent of any central authority, such as a government or a bank. While it can be used to buy goods or services, similarly to other forms of currency, most people invest in cryptocurrencies. This is because cryptocurrencies are widely thought of as being immune to inflation. Bitcoin, for example, was the first widely used form of cryptocurrency created in 2008. Bitcoin has an absolute cap of 21.0 million coins, and through a very specific mechanism by which money gets released,¹ a user can always know how much currency is currently in the system, and when new coins get added.

Others argue that cryptocurrencies are indeed vulnerable to inflation. Many point to the recent, dramatic reduction in the value of Bitcoin that coincides to increasing rates of inflation to show that cryptocurrencies are not immune to inflation, as some have claimed.

Cryptocurrency is also thought to be more secure than other mediums of monetary exchange because of the blockchain that accompanies it. A blockchain is an immutable and public ledger that records all the transactions that occur in a cryptocurrency network. "Blocks" of transactions are recorded as they occur and are then "chained" to previous transactions in order to create a complete and accurate transaction record. The blockchain can be viewed by anyone at any time and cannot be altered.

ARGUMENTS

(Please note: The arguments contained in this analysis originate from sources outside the Senate Fiscal Agency. The Senate Fiscal Agency neither supports nor opposes legislation.)

Supporting Argument

Inflation changes the value of currency as time progresses; however, cryptocurrencies protect money from losing value through inflation. For example, Bitcoin has an absolute cap of 21.0 million coins, and through the mechanism by which Bitcoins are released, a user can readily determine how much money currently is in the system and when new currency is added. In fact, El Salvador converted its sovereign treasury into Bitcoin because, among other reasons, the El Salvadoran government lacked confidence in the United States dollar. A commission of the type proposed in the bill would be well-situated to investigate how Michigan could use cryptocurrencies to protect itself from inflationary pressures and to better protect the value of its money.

¹ In particular, Bitcoins are released into circulation (and verified) through a process called "mining". "Mining" works by using a computer (or more accurately, many computers or processors) to attempt to produce a string of characters that is less than or equal to a 'target hash'. A target hash is a 64-digit alphanumeric code, and a miner is rewarded with a Bitcoin if the miner is the first to come up with a solution. The process of decoding target hashes becomes more difficult as the supply of Bitcoin increases. By way of illustration, in the early days of Bitcoin, a normal computer had a roughly one-in-five chance of producing a target hash; today, the odds are extraordinarily low.

Supporting Argument

Banking with a third party creates an opportunity to lose a notice or record of a specific transaction. A properly constructed blockchain, however, creates a secure record because it contains an exact and immutable chronological order of transactions. A commission could explore means of investing resources in blockchain to have more secure and reliable banking records within the State.

Supporting Argument

Cryptocurrency networks are constantly functioning, as opposed to traditional banks, which operate only during specified business hours. This allows users to transfer funds at any time of any day to users around the world with transaction finality within 30 minutes. A commission could investigate how Michigan businesses could take advantage of this and accept cryptocurrency as legal tender so that users in the State are connected to people around the world.

Supporting Argument

The software development community is comprised of digital nomads, i.e., young individuals who are mobile and move where opportunity presents itself. The positions that they occupy generally are well-compensated, and many of these individuals start ventures of their own. If Michigan provided an attractive business environment for these workers, they could stay and boost the economy. The creation of a cryptocurrency-related commission could serve as a signal to these workers that Michigan is serious about the future of cryptocurrency and could bring software development and other high-technology workers into the State.

Opposing Argument

There is a rising trend in which people are using cryptocurrency in phishing scams to target those who are particularly vulnerable, since its original founding was to avoid government oversight and to encourage anonymity. One example of such a problem is that of Silk Road, an online black-market platform in which the exchange of Bitcoin facilitated illegal activities. Bitcoin is not the only cryptocurrency that is used to fund illicit activities, though. Many foreign actors (e.g., North Korea) and organized crime syndicates have used ransomware or other criminal actions to acquire a variety of cryptocurrencies to fund pseudo-anonymous activities. Because of these scams and the criminality that has been involved in the cryptocurrency space, the State of Michigan should be wary of investing in cryptocurrency and should not waste resources in creating a commission.

Response: Cryptocurrencies generally are pseudo-anonymous, meaning that an individual does not know someone's currency address until they are involved in a transaction. However, once that transaction occurs, the user can be tracked down because of the immutable permanent record preserved in the blockchain. Therefore, cryptocurrencies are more secure than other media of exchange.

Opposing Argument

Currently, cryptocurrency mining efforts require large systems with thousands of computers functioning as data mining centers, which use tremendous amounts of energy and produce billions of tons of waste. In 2021, the Cambridge Center for Alternative Finance estimated that Bitcoin mining (which is only one of thousands of cryptocurrencies) consumes approximately 110 Terawatt Hours per year. These energy requirements generate substantial greenhouse gas emissions. According to a representative from the Michigan Environmental Council, Bitcoin mining in the United States created around 40 billion tons of carbon dioxide in 2020. Cryptocurrency mining also contributes a large amount of physical electronic waste, since computers and other electronic accessories have a shelf life and eventually need to be replaced. Lastly, the intensive energy use from cryptocurrency mining puts extensive strain on the power grid, which is already showing signs of stress and requires substantial, capital intensive updates. The immense energy needs and impacts of cryptocurrency mining could be harmful to the environment in Michigan, and it would be beneficial to explore other methods of validating transactions, such as demand response agreement with the operators. Creating a commission to study and encourage the development of cryptocurrency mining in Michigan would serve only to encourage these activities and could have a negative impact on Michigan's environment.

Response: Cryptocurrency mining operations are no different than other technological giants like Google or Microsoft. In fact, the Bitcoin Mining Council is currently using 60% sustainable,

renewable energy in its operations, as opposed to the normal standard of 21%. Furthermore, there is not an energy consumption per transaction. Rather, it is constantly running throughout the entire network. This means that it is possible to connect back to the power grid and provide a safety mechanism to provide power in the case of an emergency.

Opposing Argument

Many cryptocurrency platforms allow people to purchase cryptocurrencies on margin (i.e., using debt to purchase an asset), which could cause a crash. When people use leverage and have margin called, the issue cascades and creates a crash, such as the Bitcoin crash in May 2022. As the margin call occurs, the cryptocurrency is usually used to secure the margin, so it forces the sale of more of the cryptocurrency. This situation has also happened with individual stocks, in which high volatility can be seen in a short window of time. Cryptocurrency is not a stable medium of exchange, and creation of a commission could encourage individuals or businesses to invest in these extremely risky assets.

Response: Cryptocurrency is stable in a long-term investment. For example, in the history of Bitcoin, in any 200-week window, the value has always increased. This indicates that cryptocurrency crashes are mostly an optics issue.

Legislative Analyst: Olivia Ponte

FISCAL IMPACT

The bill would not have a significant fiscal impact on State or local government. Under the bill, members of the Commission would not be compensated but could be reimbursed for actual and necessary expenses incurred as part of their service. The Department of Licensing and Regulatory Affairs would determine whether an expense was qualified and would issue the reimbursement. The actual and necessary expenses incurred by the Commission members cannot be estimated at this time. In addition to these reimbursements, the Commission could incur costs related to the research required under the bill. The bill does not designate a fund source either for reimbursements or for other potential expenses.

Fiscal Analyst: Joe Carrasco, Jr.

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This analysis was prepared by nonpartisan Senate staff for use by the Senate in its deliberations and does not constitute an official statement of legislative intent.