MINUTES OF THE MAY 26, 2022
MEETING OF THE
JOINT INTERIM STANDING COMMITTEE ON REVENUE

Chair Dina Neal called a meeting of the Joint Interim Standing Committee on Revenue (created by Assembly Bill 443, 2021 Legislative Session) to order at 1:04 p.m. on May 26, 2022, via videoconference. Pursuant to *Nevada Revised Statutes* (NRS) 218A.820, there was no physical location for this meeting.

COMMITTEE MEMBERS PRESENT:
Senator Dina Neal, Chair
Assemblywoman Lesley Cohen, Vice Chair
Senator Roberta Lange for Senator Moises Denis
Senator Don Tatro
Assemblywoman Natha Anderson
Assemblywoman Venicia Considine
Assemblyman Gregory Hafen II
Assemblywoman Heidi Kasama

COMMITTEE MEMBERS ABSENT:
Senator Moises Denis

LEGISLATIVE COUNSEL BUREAU STAFF PRESENT:
Russell Guindon, Chief Principal Deputy Fiscal Analyst, Fiscal Analysis Division
Michael Nakamoto, Chief Principal Deputy Fiscal Analyst, Fiscal Analysis Division
Joe Reel, Deputy Fiscal Analyst, Fiscal Analysis Division
Anna Freeman, Committee Secretary, Fiscal Analysis Division

EXHIBITS:
Exhibit A: Meeting Packet
Exhibit B: Agenda Item VI – NV Gaming Commission and NV Gaming Control Board, Presentation on Gaming and Cryptocurrency

I. ROLL CALL.

Joe Reel, Deputy Fiscal Analyst, Fiscal Analysis Division, LCB called roll. All members were present except Senator Denis, who was excused.

II. OPENING REMARKS.

Chair Neal provided housekeeping remarks.

III. PUBLIC COMMENT.

There was no public comment.

IV. APPROVAL OF THE MINUTES OF THE MARCH 23, 2022, MEETING.

SENATOR DENIS MOVED TO APPROVE THE MINUTES OF THE MARCH 23, 2022, MEETING.

ASSEMBLYWOMAN KASAMA SECONDED THE MOTION.

THE MOTION PASSED. (Assemblywoman Cohen abstained.)

V. PRESENTATION ON RETAIL TRENDS IN CRYPTOCURRENCY.

CINDY LI (Fintech Risk and Policy Advisor, Federal Reserve Bank of San Francisco):

The views expressed in this presentation are our own and do not necessarily reflect those of the Federal Reserve Bank of San Francisco or the Federal Reserve System (page 38, Exhibit A).

My colleague, Mr. English, and I belong to the first subject matter expert team dedicated to financial technology (fintech) activity using the Federal Reserve System. This team is part of the Federal Reserve System, as central bankers, but also shares the responsibility of bank regulation with the Office of the Comptroller of the Currency (OCC), Federal Deposit Insurance Corporation (FDIC), and state regulators. At the Federal Reserve Bank of San Francisco, the fintech team is housed under the Supervision + Credit (S+C) Group and is focused on how fintech influences supervised institutions. Most of the team's time is spent conducting research and analysis, identifying relevant issues that financial regulators may wish to act upon in the future. The team also connects to the banking and fintech community on emerging issues impacting the financial system.

On the West Coast, there is an advantage of interacting with the local community where many interesting and challenging fintech activities are happening. This allows the team to dig deeper into emerging trends and forward-looking views for analysis. Emerging fintech activities include partnerships where the team moves quickly to capture the latest developments in the industry. Cryptocurrency is a long-term commitment of the team. Mainstream financial institution adoption of digital assets is anticipated to increase. That trend is not transitional, even though activity in the marketplace and policy and regulatory uncertainties may change the business model.

Mr. English and I spend 100% of our time on cryptocurrency-related activities, researching industry trends, ensuring good input to Federal Reserve colleagues, and providing input on policy outcomes. The fintech team has a mission to advance the general understanding of financial inclusion and financial health issues, which are core value propositions of many fintech firms. The team spends a lot of time conceptualizing and assessing these issues and incorporating them into everyday work.

ASSEMBLYWOMAN ANDERSON:

What is meant by financial inclusion? Is that age, economic background, or ethnic diversity?

MS. LI:

Inclusion is the first step in the opportunity for access of financial services and economic opportunities. The metrics you mentioned are used to measure the overall picture and identify opportunities to improve. Inclusion metrics give an entry-level understanding of the people who have access to basic bank accounts and if they have the support to appropriately connect financial activities to improve their overall financial health. It is a combination of financial education, which is part of the mission, and the compliance function of bank regulators, ensuring that banks are supporting consumers.

ERIN ENGLISH (Senior Fintech Risk and Policy Advisor, Federal Reserve Bank of San Francisco):

There are generally three types of cryptocurrencies or digital currencies (page 40, Exhibit A):

- Unbacked cryptocurrency such as Bitcoin and Ethereum.
- Stablecoins, which seek to peg asset value to a currency, such as the United States dollar.
- Central Bank Digital Currencies (CBDCs), digital currencies issued by a central bank.

The first type—unbacked cryptocurrency—is digital money that does not require government backing or the involvement of an intermediary. They almost exclusively exchange value on a peer-to-peer basis. There are approximately 15,000 types of cryptocurrencies in the market today; the largest two, by market capitalization, are Bitcoin and Ethereum.

Bitcoin is the oldest, most valuable digital asset and is still preeminent in payments and trading. Ethereum's ether (ETH) token is the second most valuable and the most popular platform for smart contract software development billing. Ethereum handles approximately one million transactions daily. Because of the peer-to-peer network and a fairly robust market, the price volatility of Bitcoin and Ethereum can be intense at times, leading to the second category: stablecoins.

Stablecoins are digital assets designed to maintain a stable value relative to a national currency or other reference asset. Today, stablecoins are primarily used in the United States to facilitate trading, lending, or borrowing of other digital assets, predominantly on or through digital asset trading platforms. The vast majority of stablecoin activity is associated with centralized stablecoins, most notably the United States Dollar Coin (USDC) and the largest stablecoin by volume: Tether (USDT). The issuers and operators of these stablecoins usually maintain reserves of high-quality liquid assets. Depending on the issuer, they usually have fairly robust government protocols.

Unbacked cryptocurrency and stablecoins motivated a third category: the CBDC. Central banks, globally, are interested. Recently, the Bank of International Settlements released its annual survey of central banks on the CBDC. Approximately 90% of the surveyed central banks are exploring it. Last year's figure was approximately 87% but

this year, half of that 90% are not just exploring but are in the development phase. There is attraction to the underlying technology of how the stablecoins of Ethereum and Bitcoin operate. A concern of central banks is the dependence on the market of the jurisdiction and feeling competition for some of these cryptocurrencies. That is one of many motivations for exploring this.

A common risk among all of these is that they are software-based. Reliable cybersecurity practices for network infrastructures should—and must—apply in order to use these types of currencies. The same goes for licensed money service providers in respect to email transit.

Cryptocurrency usage is relatively even with some familiar products and services (page 41, Exhibit A). However, there are two unique qualities behind the numbers. The pace of growth of cryptocurrencies has grown significantly in the past few years. Despite this growth, there is a fair amount of uncertainty as to how it operates. An April 2022 survey by http://www.payments.com/ noted that 56% of consumers who do not own cryptocurrency do not feel comfortable purchasing it, and 30% had questions on how to purchase it. Twenty percent of respondents who do not own cryptocurrency say this is because they perceive it as a bad investment or are concerned with the volatility of prices.

Much of the growth is with Generation Z and millennials, who essentially grew up as digital natives. Approximately 87% of cryptocurrency buyers are purchasing Bitcoin. Page 42 shows who has bought cryptocurrency (Exhibit A). The surveyors noted another category of individuals they call the crypto-curious. They define those as individuals who do not currently own cryptocurrency but indicate wanting to learn about or are planning to buy soon. This group is significant in size, approximately 63% of adults in the United States. While only 26% of cryptocurrency holders are women, surveyors noted that they see potential for this to change significantly. Women account for more than half of the crypto-curious group.

Regardless of age demographics, something that remains the same is that most people who buy cryptoassets or cryptocurrencies see them as long-term investments (page 43, Exhibit A). Despite being a form of digital money, only 12% of cryptocurrency holders use it for purchases, due to its volatility. A growing number of businesses accept cryptocurrency for payment, but most users see it as an investment. Most users do not have an expectation of privacy when using cryptocurrency, but cryptocurrency operates on an immutable internet ledger where every transaction is captured and recorded. What is captured is not necessarily in English, but there is a unique identifier always associated with a user. Most users would likely agree that this inherently makes privacy challenging.

MS. LI:

Some driving factors affecting the adoption of cryptocurrency by banks are shown on page 44 (Exhibit A). Financial institutions are increasingly starting to try out cryptocurrency-related activities. This trend is likely here to stay. Money managers and hedge funds are pushing their primary banks to offer crypto services. They are

uncomfortable with crypto startups. They do not want to rely on these startups to get into trading cryptocurrency for clients. They want to be able to offer crypto services to their clients and do not want to lose out to rivals. That is a new development on the institutional side. This coincides with retail trends observed in the past couple of years. Customers want crypto activities with their primary banks; approximately 71% of Bitcoin holders said they were willing to switch primary banks to a bank that offered Bitcoin-related products. There is customer demand driving banks to consider these services.

It is likely that policy and regulation regarding cryptocurrency are the biggest challenges the industry faces. Interagency guidance relating to custody and trading of cryptoassets is expected during calendar year 2022 (page 46, Exhibit A). Holding cryptoassets on balance sheets relates to permissibility. There are always twists and turns in this interagency process, but one thing is certain: evaluating crypto risk is a high priority for banking regulation agencies.

The Basel Committee on Banking Supervision 2021 Consultative Document on page 47 is a preliminary plan for capital treatment of cryptoassets (Exhibit A). The Basel Committee is currently creating the second version of this document, expected during calendar year 2022. The risk and volatility of the crypto market will be important topics for banks.

Currently, there are no accounting or disclosure rules specific to crypto holdings (page 48, Exhibit A). Public companies account for most cryptoassets as intangible assets with indefinite life under generally accepted accounting principles (GAAP); companies can record and realize losses but not gains. There has been a push by some public companies to switch to fair weather accounting so that gains can be recognized on balance sheets. The Financial Accounting Standards Board (FASB) is considering setting rules on companies' crypto accounting and disclosure rules, which may include fair weather accounting as a consideration.

The U.S. Securities and Exchange Commission (SEC) Accounting Bulletin 121, released in March 2022, had significant impact on supervised institutions such as publicly listed banks and crypto firms providing crypto custody services. Accounting Bulletin 121 says that an issuer that holds digital assets for others but does not control them will need to recognize a liability for its obligation to safeguard the digital assets and corresponding assets. This is not the case for traditional types of financial assets, but this would have implications for publicly listed crypto firms and publicly listed banks that are considering providing custodial services, because this will factor into the cost of doing business and potential capital treatment.

Bank regulators and bank supervisors recognize that there are many moving pieces in a policy and regulatory environment. As banks begin considering crypto proposals, the focus is on how to evaluate the safety and substance of these proposals as well as consumer protection implications.

Some of the supervisory focuses are:

- Strategy
- Governance and controls
- Information technology (IT) risks
- Cybersecurity
- Security Assertion Markup Language (SAML) third-party management compliance

ASSEMBLYWOMAN COHEN:

You spoke about the percentages of American households that own cryptoassets. Is there data on the amounts owned?

MR. ENGLISH:

Anecdotally, there are two categories: retail investors just trying it out and investors from the investment community. Bitcoin has always been a retail-focused asset, but there is a growing interest in the investment community.

MS. LI:

The statistics of household wealth are unknown, but anecdotally there are examples of people putting all of their discretionary savings into Bitcoin. As a regulator, I tried to encourage financial health and diversification to someone with all his savings in Bitcoin, but he wanted to send me a referral link. Others think of cryptoassets as a diversifier of their portfolios. The engineer community involved in the development of cryptoassets has owned a large portion of available tokens since the beginning of the project; they hold those long term and do not necessarily trade. The investor protection is more relevant for those return investors that participated in this booming market in the past year or so.

ASSEMBLYWOMAN CONSIDINE:

Terra was intended to be tethered to the United States dollar, but it was later separated. It seems that Terra considered itself a stablecoin, but when things got rough in the wars of the coins it became unstable. Who makes the determination of classification for stablecoin and are there regulations that must be met?

MR. ENGLISH:

Most stablecoins on the market today are through a collateral market. For example, the CENTRE Consortium of Circle and Coinbase came together to create the USDC. For as many USDCs in circulation in a depository institution, there is the equivalent amount in very liquid assets, mostly cash or some very highly liquid securities. TerraUSD (UST) stablecoin was in a previously unmentioned category: algorithmic. It did not have collateral as backing. The peg was dependent upon another cryptocurrency: Luna. It was stable insofar as everything worked as long as there was demand. There is still

much unknown; what happened was fairly recent. When people wanted to leave the market, it was unstable. Algorithmic stablecoins have been around for a while; Terra was the largest. It was not particularly stable.

In Washington D.C., there is a presidential working group (PWG)—an interagency group—working on the issue of stablecoin right now. Most of its focus, rightly, has been on the collateralized version. Policymakers will likely make the determination of classifications at a federal level. Over time, more information will become available as to what went wrong with Terra. It will continue to be monitored as well.

MS. LI:

There are many nuances. Stablecoin is not a generally accepted concept. If a firm issues tokenized deposits and does not call them stablecoins but they are backed by deposit; is that stablecoin? It gets technical. If a cryptocurrency pegs its value to fiat currency, it is generally considered stablecoin.

ASSEMBLYWOMAN CONSIDINE:

If someone buys from the entity itself, there is information whether the coin is pegged to something. When coins are traded on another platform, is there any consumer protection or information requirements so that consumers understand what they are buying?

Ms. Li:

That is the center of who regulates stablecoin and how it should be regulated. All stablecoins have white papers and protocols. Conceptually, it is open-sourced but there is no common status. For example, even with fiat-backed currency claiming to be backed 100% by U.S. Treasury notes, stablecoins incorporated outside of the United States with primarily international customers are generally not audited. Much is voluntary disclosure, which is a direction of the current regulatory debate.

ASSEMBLYWOMAN ANDERSON:

Does “Crypto-curious” refer to people who are just looking into the possibility?

MR. ENGLISH:

Defined by the survey, crypto-curious refers to those people who have not yet bought cryptocurrency but are in the process of learning about it. There is an expectation that they will buy soon.

ASSEMBLYWOMAN ANDERSON:

It was mentioned that some businesses are starting to look into cryptocurrency. How is that reported on profits at the state or federal level?

MS. LI:

The United States does not have any crypto-specific accounting rules. Cryptocurrency can be counted as an intangible asset, with gains unrecognized. Some publicly listed companies would prefer to change the accounting rules to have those gains recognized, making their success measurable in that area. On the other hand, this would create many issues for supervised banks in terms of what is included on balance sheets and if capital must be reserved against those risky assets. Bank supervision would have many practical complications.

ASSEMBLYWOMAN ANDERSON:

I am concerned there may be a situation similar to that with junk bonds. Vulnerable, older individuals with money could be preyed upon and convinced to invest where the return on investment is nonexistent. I recognize that the interagency guidance is coming. What are the safeguards to ensure that people are not taken advantage of in this risky situation?

MS. LI:

Unfortunately, interagency guidance will not cover that part. It will be about how banks can meet the safety and soundness assessment of different crypto activities and provide guidance about how supervisors evaluate crypto-related activity.

The bank is a small part of this. Although some banks are starting to look into crypto activities, they are not the major players in this field. There are crypto firms with different licenses; some of them are regulated as trust companies, but the majority are just technology companies. This will be the top priority of many regulators, including the SEC and the Consumer Financial Protection Bureau (CFPB).

SENATOR DENIS:

What should the state be concerned about regarding cryptocurrency? Could this impact state revenue? Is there a possible need to change laws to accommodate cryptocurrency?

MS. LI:

I can share observations of what other states are doing. The New York Department of Financial Services (DFS) has been regulating stablecoin and stablecoin issuers for a long time. Wyoming has a special purpose depository institution chapter in statute. There are positive drives to normalize this regulation and allow crypto companies to operate in those states. Other states have different initiatives, but even New York State—a different part of the state government—came up with another term “bitcoin mining,” considering the environmental impact. California issued an executive order recently concerning digital asset-related activity with a focus on consumer protection. There are many policy initiatives with differing priorities.

MR. ENGLISH:

In a forum like today's meeting, there is a public comment period, there is a fair amount of new technology and new use cases, and new activities. Whether it is bringing something up for public comment or informational testimonial sessions such as this—the importance of those cannot be stressed enough.

SENATOR DENIS:

My concern is getting behind in new technology and then trying to catch up. Is there something this Committee should be looking at to help the state keep up with new technology?

MS. LI:

It is part of our job to be forward-looking and capture some of these trends. We have been wanting to bring what is going on in fintech for more than five years, crypto in more than three years. Anything we can do with knowledge sharing and information sharing, we are happy to hear more suggestions from you. The regulatory community will always be more than one step lagging in industry development, especially in the software, cryptocurrency, and fintech communities. This innovation is powered by technology; the pace in business models, private tech firms, federal banks, and collaboration with them is not the same anymore. Some banks are considering launching new products in a very short period of time, which is a challenge for bank regulators as well. The Federal Reserve Bank of San Francisco is upping efforts to acquire talent, build knowledge, and train regulators up to speed in this field.

Chair Neal:

Many millennials seem to see cryptoassets as their way to wealth. How is the fair market value (FMV) of cryptocurrency determined in an hour-to-hour volatile market?

MR. ENGLISH:

It is a fairly fluid supply-and-demand market. Conventionally, an entity would provide an FMV. Here, the volatility is acknowledged. An entire industry is developing programs and trying to figure out when the price of Bitcoin will go up and down. It is a source of constant attention, but when talking about a borderless open-source infrastructure and trying to establish a level of insight, it can be difficult. This is a market that does not have a closing of the trading day and the entities do not sell at the end of the day, but in ten minutes. Something that happens in Asia could affect the price in another area, it lends to that volatility and makes that aspect difficult.

Ms. Li:

Thinking about how the market cap is calculated, even for traditional financial assets, it is not completely straightforward. A case of an asset listed on two different markets and there is an arbitrage opportunity between the two. In that case, there is obviously a market, but any market cap estimated, even in traditional finance, is an estimate. That is why it is important for us to site our sources when talking about market cap in general. In the case of crypto, it is more complicated because the exchanges are fragmented. There are no official statistics. There is no country borderline; that is different from traditional financial markets. There are some statistics coming from coin metrics, coin market cap, the industry collectively recognizes as more reputable than some other sources. They verify some of the holdings at different exchanges and estimate, but that is still something that likely only captures part of the market, not the entire market. Because it is software, it actually makes it easier to capture this if, to the extent they can verify technically the blockchain, they can attach a price tag to that. That is part of being able to update in a more instant fashion. Crypto is doing a better job than traditional financial assets.

CHAIR NEAL:

Banks are considering trying to accept cryptocurrency. State financial division institutions are waiting for federal guidance. Theoretically, what are the conversations around the conflict of accepting cryptocurrency as income? There is no delivery location. There is no billing location. There are banking rules that people must identify themselves more than an identifier number. There is wire fraud. There are rules governing how to move money. This is interesting because the Internal Revenue Service (IRS) treats cryptocurrency as property. If cryptocurrency transactions are equivalent to bartering goods, that makes sense. However, if it is treated as property yet it is essentially equivalent to a foreign currency, how does that work?

MS. LI:

Supervisors with the Federal Reserve are in talks with financial regulators in Nevada. It is difficult to discuss this in broad terms. I have not seen two crypto proposals that look exactly the same. It depends on who is doing what at the subsidiary, holding company, and bank levels. If a bank wants to offer custodial services, they could use a third-party sub-custody, but what does that contract look like? Supervisors are trying to learn from this process. There is always something new to learn in each case.

CHAIR NEAL:

I will save my question on NFTs for another date.

MS. LI:

If we come back for another presentation, Mr. English and I will include more information on NFTs.

ASSEMBLYWOMAN CONSIDINE:

It was my understanding that cryptocurrencies and blockchains were created to take out the middle man and work around the entire financial institution system. If that is the basis of this idea, do you foresee—as far as regulations go—a bifurcation of stablecoin that is collateralized as opposed to the type of cryptocurrency that may stay outside of the system? Do you think at some point all of this will come together and become part of the regular financial system?

MR. ENGLISH:

Satoshi Nakamoto released his white paper on October 31, 2008. That was an intent within a very short period. That is what the technology can enable. However, consumers prefer to go to a trusted entity. That trend has been consistent since the release of the white papers. There were a lot of peer-to-peer exchanges outside the financial structure, but it was the formal financial structure that ensured licensed, regulated entities that provided those consumer protections. Today, it is a complex process to trade NFTs using an unhosted wallet; there are a lot of risks to an individual. That is another aspect of this ecosystem: people want to get involved and they think there is value in NFTs, but they want those protections. There will always be peer-to-peer exchanges and operations outside of that. However, the trend is that most people want to use cryptocurrency as a new technology within regulated parameters.

MS. LI:

I think the direction will be somewhere in the middle. The crypto community set out to be an alternative to traditional financial systems. Once transactions start to intersect with institutional investors, there is no way to avoid interacting with the regulated financial system. Even though the philosophy is to have direct peer-to-peer financing, the infrastructure serves as a middle man. If it is not a bank, should it be regulated? That is another question. Mr. English mentioned centralized versus decentralized finance. When a crypto company wants to grow in scale and engage in the traditional financial institutions of its customers, it will converge to that centralized system.

There was no further discussion on this agenda item.

VI. PRESENTATION ON GAMING AND CRYPTOCURRENCY.

BEN KIECKHEFER (Member, Nevada Gaming Commission):

In 2017, the Nevada Legislature passed Senate Bill (S.B.) 391, which put the definition of a blockchain into statute, recognized transactions that occurred over a blockchain in the Electronic Records Act, and put down a marker that the state would recognize this technology. In 2019, virtual currencies made their way into Nevada statutes in S. B. 164, which added virtual currencies to the list of intangible personal property, and in the list of items exempt from taxation in the state along with bonds, stocks, and notes. It was also

incorporated through S.B. 44 (2019 Legislative Session) as property for the purposes of the Unclaimed Property Act. Virtual currency could then be incorporated into Unclaimed Property through the Treasurer's Office.

In 2021, S.B. 71 stated that game-related digital content is exempt from the digital currency definition for the Unclaimed Property Act. Senate Bill 165 created the Esports Technical Advisory Committee, a subcommittee of the Nevada Gaming Control Board (GCB), which is looking at wagering on esports as public policy for the state. Virtual currency is sure to come up in that discussion.

It is the responsibility of regulators to continuously adopt the needs of customers in a responsible way and adapt processes to reflect the demand. It is inevitable that cryptocurrencies will be a currency with which people want to make wagers—the State of Nevada needs to be prepared for that from a regulatory perspective as well as from a taxation perspective to ensure that the state continues to receive the tax revenue it deserves and needs as a part of any wagers made using cryptocurrency.

J. BRIN GIBSON (Chairman, GCB):

There are some unique aspects of cryptocurrency in the gaming space, but there is some crossover from the previous presentation.

Blockchain is the underlying technology of cryptocurrency (page 2, Exhibit B). Blockchain is a public distributive ledger recording methodology for transactions. A transaction can include anything of value; a deed, car title, or software could be transacted. Most often, blockchain transactions are used to record transactions involving cryptocurrency.

Blockchain technology keeps an automatically generated encrypted record, or ledger, of all transactions in which it is employed. Page 2 shows a graphic of how the ledgers work (Exhibit B). There are various nodes associated with a cryptocurrency and ledgers associated with those nodes. On each ledger, each block—as part of the blockchain for transaction—would record certain elements of the transaction. This is something that makes cryptocurrency relatively difficult to manipulate. For example: with Bitcoin, there are 15,000 different nodes, and with each node there is an associated ledger. In order to manipulate Bitcoin, one would have to go in and, with approximately 50%, would have to change the ledger. That is a large number that would be very difficult to manipulate. It would require huge collusion, which makes it nearly impossible for a deep market cryptocurrency.

The term "block" in the blockchain is where the transaction has some security (page 4, Exhibit B). Each transaction on the distributive ledger serves as a metaphorical block and is added to the existing chain of similar transactional blocks. It is effectively a ledger or chain of custody. An ideal blockchain record is encrypted and contains redundancies because there are ledgers associated with each node and there are many nodes associated with each currency. This ensures that the record is not falsified or altered unjustifiably. The unbroken record adheres to strict chain of custody rules and is shared

with every member of the blockchain. Each new transaction is added to the record, timestamped, and verified by all those using the blockchain to ensure validity.

Page 5 shows an example of a transaction block on a ledger (Exhibit B). With Bitcoin, for example, there would be 15,000 different nodes with each transaction as part of the ledger. It contains a header, a hash function, and a timestamp. Digital currencies are one of the applications of blockchain technology (page 6, Exhibit B). There are approximately 1,500 digital currencies, and they vary widely in their legitimacy. Some are legitimate—Bitcoin, for example. Some are illegitimate, depending on the depth of the market, how widely they are traded, how well they are known, and what the underlying system looks like. Cryptocurrencies are not issued by central banks at this time or protected by government rules in the way that fiat currency is. It is a decentralized type of currency.

The intersection of cryptocurrency and gambling was inevitable. Cryptocurrencies provide certain transactional benefits:

- The fees associated with cryptocurrency transactions can be much lower than a wire fee or going through account creation. Everything associated with traditional banking transactions, including obtaining a bank account, can be a high cost for some people.

- Payment confirmation with cryptocurrency occurs immediately.

- Crypto transactions are irreversible—this lowers certain fraud risks related to traditional currencies.

- Certain indicators of ownership are recorded in each distributed ledger block—many argue that personal identification is less important to the transaction in the gaming space.

Advocates argue that lower cryptocurrency transaction fees may allow for greater casino bonusing (page 8, Exhibit B). The margins in some types of gaming—sports wagering, for example—are extraordinarily small. The lower the transactional fee, the greater the potential bonusing. Transfers occur outside of traditional banking systems and advocates argue that they are simple. Individual identities are not generally tied to a transaction, creating greater potential for a type of anonymity referred to as pseudonymity. The electronic nature of cryptocurrencies may appeal to a different demographic group. As Nevada attempts to widen its gaming market, allowing cryptocurrencies either on the floor prior to a wager or in wagering is one of the things heard most in the industry that may appeal to younger and different types of demographic groups.

There are risks associated with cryptocurrencies (page 9, Exhibit B). In the gaming market, the risks are especially unique. Casinos that have gross annual revenue above a certain amount are subject to Title 31 of the Bank Secrecy Act (BSA).

Some of the risks of cryptocurrencies in gaming include:

- Market risk.
- Shallow market problems.
- Counterparty risk.
- Transaction risk.
- Operational risk.
- Privacy-related risk.
- Legal and regulatory risk.
- Anti-Money Laundering (AML) challenges, including use of currency "Mixers."
- Some transactions allow for multiple wallets to be used simultaneously, making it difficult to trace back any particular transaction to an individual.

There is great volatility in crypto markets. The graph on page 10 shows trading volume and trading activity associated with crypto markets (Exhibit B). Depending on the type of cryptocurrency, the volatility can be considerable. Over the last few weeks, some of that has been seen.

The shallow market problem is substantial (page 11, Exhibit B). A cryptocurrency that is not widely traded—meaning it is relatively new and there is only a small number of people who own it—can be manipulated easily by trading large blocks of it. Those businesses that accept cryptocurrency as a representative value only accept certain types or certain names of cryptocurrencies.

There are counterparty risks (page 12, Exhibit B). If the underlying cryptocurrency exchange is illegitimate or if it is seized by the federal government or a state agency, the people using that exchange may lose their funds. There is no insurance, such as from the FDIC. The $250,000 amount for insured banks and credit unions does not exist for cryptocurrency exchanges.

Another type of counterparty risk is fraud (page 13, Exhibit B). There are many scams from different sources. There are distributed denial-of-service (DDoS) attacks and mining scams.

Transaction permanency can be a problem (page 14, Exhibit B). When there are 15,000 nodes and ledgers associated with each node, if there is an error in transaction, it is irreversible. It is not easy to fix a problem with a transaction.

There are operational risks that deal with infrastructure and security assumptions (page 15, Exhibit B). There are large numbers of gambling transactions and currency-exchange transactions that may be subject to DDoS attacks, operator error, and vulnerability in the underlying software, which could allow for back-door hacking and other problems.

Anonymity in the cryptocurrency space is an interesting issue (page 16, Exhibit B). The Know Your Customer (KYC) regulations in the USA Patriot Act of 2001 adhere in the gaming space; they must be followed for Title 31 purposes. Some say anonymity is essential to cryptocurrency. That is a problem. Cryptocurrency addresses are public key hashes. Personal identification is not inherent in that public key hash—this type of anonymity is specific to cryptocurrencies and is called pseudonymity. True anonymity would require both pseudonymity and the inability to link transactions to an individual. Different interactions of the same individual using different public key hashes should be difficult to link to the individual. However, it is not difficult to create multiple key hashes with cryptocurrency, making it difficult to link multiple transactions back to an individual who used different key hashes.

There are legal and regulatory risks (page 17, Exhibit B). As mentioned previously, if a cryptocurrency exchange is seized or forced to stop operating—due to illicit activity or being named on a foreign national list from the Financial Crimes Enforcement Network (FinCEN)—people involved in that exchange would lose their investments. Untraceable digital currencies also are often used to illicit activity such as tax evasion and sale of illegal items. A website called Silk Road was one of the biggest examples of illicit goods for sale using cryptocurrencies.

One of the major AML challenges is the use of “Mixers,” an attempt to obfuscate the identity of the individual behind an identity hash (page 18, Exhibit B). Identity hashes are pooled, and transactions are made in a way that is difficult to trace back to an individual person. The U.S. Department of the Treasury and FinCEN made an action recently against a group known as the Lazarus Group, which was three or four different companies based in North Korea that created backdoors into cryptocurrency and hacked approximately $620 million worth of cryptocurrency. There are nations that FinCEN has deemed potentially threatening to national security and a number of these countries have extensive cryptocurrency mining networks. Iran, Russia, and Venezuela are examples. These regimes have publicly declared intention to use or develop cryptocurrencies for illicit activity, including to evade sanctions, such as those imposed on Russia due to its illegal invasion of Ukraine.

One individual can generate multiple identity hashes and they could be in multiple wallets. These different wallets and hashes can be used in a single transaction. Page 20 illustrates a clustering of identity addresses—or identity hashes—associated with a cryptocurrency (Exhibit B). The pooling of these addresses can make it incredibly difficult—depending on the attempt to obfuscate and the number of addresses—to trace a transaction back to an individual.

Page 21 illustrates a multi-address purchase, or pooling. A person with multiple identity addresses may use more than one address to make a purchase (Exhibit B).

In March 2022, President Biden issued an executive order that is important to understand: "Ensuring Responsible Development of Digital Assets" (Exhibit B). It is the first whole-government approach to addressing risk and harnessing the potential of digital assets and distributed ledger technology.

There are six key priorities laid out in this document:

- Consumer and investor protection is first and foremost.
- Financial stability
- Preventing illicit financing is a key element.
- United States leadership in global financing system—the government plays an important role as a regulator.
- Financial inclusion is another goal of digital assets.
- Responsible innovation is the mantra—this is something that FinCEN talks about regularly.

FinCEN is an umbrella organization housed in the U.S. Department of Treasury and it is the central repository for financial transactions that have any dealing with the United States. FinCEN has access to all transactions involving the Central Intelligence Agency (CIA), the National Security Agency (NSA), the FBI, and state regulatory agencies and has vast computing power and the ability to use algorithms to find anomalies and to link transactions back to individuals and groups. The goal is to prevent illicit financing and laundering of money to illegal activities.

The Deputy Director of Enforcement and Compliance for FinCEN, Alessio Evangelista, made remarks on May 19, 2022 (page 23, Exhibit A):

- National security, prevention of illicit financing, consumer protection, and financial stability must occur while also modernizing United States and global payment systems—this is what President Biden laid out.
- The fundamental principle is responsible financial innovation.
- Financial institutions under the BSA and the regulation of FinCEN include casinos. They are obligated to ensure any new currency offerings are executed in coordination with controls commensurate with the risk of the new payment offering.

- According to President Biden and FinCEN, new financial products must be built with compliance in mind—a virtual asset service provider may not build a new cryptocurrency and then go back to attempt to create compliance or build compliance into the asset after it is already on the market.

FinCEN guidance in the context of casino operations is fairly simple and clear: the AML and cash transaction reporting requirements apply to financial institutions—including certain gaming licensees—dealing with cryptocurrencies and all other digital assets the same way as the financial institutions dealing in fiat currency (page 24, Exhibit B). Cash transaction reports, suspicious activity reporting, and all files that are currently filed with the IRS and FinCEN will still need to be filed if cryptocurrencies are allowed to be used in gambling.

JIM BARBEE (Chief, Technology Division, GCB):

The casino industry has some unique challenges when it comes to making use of cryptocurrency. Outside of the BSA requirements, there are things that operators will need to take into account that primarily are a result of the fluctuating value of cryptocurrencies:

1. Calculating and reporting taxes in dollars and cents—with the value of cryptocurrency changing hourly there would need to be a scheme in place to, at any particular time, be able to evaluate their tax burden.

2. Patron protection—if a casino were holding cryptocurrency on behalf of a patron, there would need to be some type of reserve requirement. Because of the fluctuating value, there may be challenges in determining that reserve requirement.

3. Wagering activity—particularly conducting future wagering activities such as sports wagering: if a patron places a wager on a future event using cryptocurrency at today's value but the value of the cryptocurrency deflates, the patron could potentially lose money with a winning wager.

The GCB has seen a small amount of interest from operators on how the GCB and the Gaming Commission would handle digital assets such as NFTs. There are several potential applications of NFTs in the gaming space.

An NFT could be an award. When a slot machine lines up a certain combination of symbols, instead of paying out dollars and cents, perhaps it could pay an NFT. The GCB would likely look at that as any other asset for tax reporting purposes and require reporting on that asset at its cost. For example, when someone wins a progressive to win a car, the licensee deducts the purchase price of the car, not the market value. That same approach could be applied to NFTs used for payouts.

One of the most interesting uses might come when an NFT represents a game element. This is where the use of blockchain may intersect the gaming space. Think of a horse in

a horse racing game: the horse has unique characteristics such as being good at straightaways, having burst speed, coming on heavy, or pulling in late. Those characteristics can all be coded into an NFT, and someone can own that horse and enter it in a virtual race against horses that have varying attributes. As the race progresses, a random number generator (RNG) is called, and those attributes are compared to determine who will ultimately win the event. The example of horse racing is the most straight forward, but there is no limit to conducting that type of gaming activity. The game elements are based on NFTs that compete against one another based on their assets where the outcome is determined by an RNG. So far, the industry has shown only a casual interest because of the associated overhead. The necessary work and resources may outweigh the benefits of using cryptocurrency.

MR. GIBSON:

Currently, there are cryptocurrency-based casinos. They tend to be internet-based casinos that are not licensed or regulated. There may be one that is licensed in another country. One reason why cryptocurrency is attractive for that kind of gambling is that it is difficult to trace the activity back to an individual.

ASSEMBLYWOMAN CONSIDINE:

Mr. Kieckhefer mentioned the bills that have been passed and that cryptocurrencies are treated as property exempt from taxation. If these ideas for the gaming space move forward, will changes to the NRS be necessary to treat cryptocurrencies as currencies rather than property in order to change the taxability?

MR. KIECKHEFER:

The NRS currently reflects virtual currencies as intangible personal property. That does not necessarily prohibit the GCB and the Gaming Commission to promulgate and adopt regulations allowing for the use of cryptocurrency in wagering. They are not necessarily mutually exclusive. However, it may be time to look at whether changes to the definitions of cryptocurrency need to be made in statute to reflect their use as an actual currency rather than property.

CHAIR NEAL:

If casinos were to utilize cryptocurrency, could cryptocurrency be accepted as gratuity?

MR. GIBSON:

There are already challenges with tip pooling. I do not know how adding cryptocurrency may affect this.

MR. BARBEE:

Currently, gratuity can be given in property such as show tickets or jewelry. That is outside of the GCB's purview.

MR. KIECKHEFER:

Different casino properties could look at adoption of cryptocurrency very differently. A property may decide to hold cryptocurrency and accept wagers in it. There could also be an intermediary that does an instantaneous conversion into United States dollars. How a property or a technology service provider facilitates those transactions could dictate how things like tipping and taxation are treated.

CHAIR NEAL:

Information from the IRS says if payments are made using virtual currency, they are subject to backup withholding to the same extent of other payments made in property. In the context of issuing a payment, the gaming company then must do that withholding for that currency. It creates additional accounting measures.

MR. GIBSON:

It would need to be exchanged into fiat currency almost immediately and then deal with the accounting issues.

MR. BARBEE:

Cryptocurrency is on the gaming floor today. However, it goes through an exchange service before it enters into the gaming space. For example, a patron could use a cryptocurrency automatic teller machine (ATM) to make a withdrawal, get fiat currency, and then game with that if they so choose.

CHAIR NEAL:

There are short-term capital gains and losses associated with revenue from cryptocurrency. If a gaming property accepts cryptocurrency that then gains value, the capital gains are still attributed to the property because it is revenue that has been received and then must be reported.

MR. GIBSON:

Capital gains and losses must be counted and recorded. The addition of capital gains and losses from fluctuating cryptocurrency values would create a complex auditing process. The GCB employs approximately 80 auditors; it is one of the reasons for its tax collection rate of approximately 99%. There will likely be software fixes going forward that will make it easier, but with current technology it would be very complex.

MR. BARBEE:

In discussion with the GCB's Chief of Audits on handling cryptocurrency used for wagering, the question comes up: if it loses value, is that a gaming loss? This would be outside of operating revenue, but it is unknown if fluctuation in cryptocurrency value should be considered a gaming loss and win. It is unknown if the state would take a hit in gaming taxes paid if there were a loss due to the significant fluctuations in cryptocurrency value.

CHAIR NEAL:

Some of the early IRS notices have given information on capital gains and losses, but extra effort will be required from the GCB if this comes to be.

There is a rule from the IRS on treatment of third-party network transactions. What sort of additional reporting has been discussed within the GCB regarding third parties receiving payment in cryptocurrency?

MR. BARBEE:

There is a regulated entity called the cash access and wager instrument service provider. It has not yet directly been explored how third-party cryptocurrency payments would be handled but there is a similar structure for regulating kiosk providers who provide cash access and wagering instruments. They come under the GCB's purview via a licensing process. There are not standards on the various fees; the GCB has not attempted to delve into that market factor.

CHAIR NEAL:

The IRS treats income from an NFT as inventory. How would exclusions and inclusions be treated in the gaming space?

MR. GIBSON:

Non-fungible tokens would not fit the traditional inventory standards in casinos. It may be considered intellectual property or intangible property. A response will be provided to the Committee at a later date.

CHAIR NEAL:

There are various categories of intangible assets and casinos will need to treat it in the way federal law has established.

MR. GIBSON:

Each proposal dealing with NFTs and cryptocurrencies is different. The GCB has asked members of the industry to bring proposals to be vetted. If there is something that is viable and can be adequately regulated—ensuring tax is collected properly and there are no laundering issues—the GCB will move in that direction. The GCB does not hold a posture of rejection but is also not trying to get in front of something that is so complex and has so many variants that staff cannot possibly understand them all. The GCB is in a position to accept whatever the industry wants to bring. So far, there has not been much that is solid.

CHAIR NEAL:

There is work to do in the policy space around tax. I want to stay involved in these conversations. It is risky business.

MR. KIECKHEFER:

The approach the GCB takes in regulating industry and ensuring that it is working with the industry to move in a reasonable and necessary direction is impressive. Changes that the industry wants to propose will be considered; that is a good place to be as cryptocurrency continues to evolve and the gaming industry tries to find the right fit for it.

ASSEMBLYWOMAN KASAMA:

Is there any casino property in Nevada currently pushing for the ability to accept cryptocurrency directly? If there are already third-party vendors providing exchanges, can it just be left that way?

MR. GIBSON:

The kiosk providers seem to be the most vocal. The GCB has not been approached by any licensee pushing hard for the use of cryptocurrency in gambling transactions.

MR. BARBEE:

There have been conversations with operators and manufacturers about the potential use of cryptocurrency. The GCB's response is open: tell the GCB what you want to do and how it would satisfy some of the fundamental requirements discussed today. The GCB could then come from a better position of knowledge on how to regulate. Thus far, it has only been a casual interest. There have not been many of these conversations.

Some manufacturers want to explore this as an opportunity. It is a popular topic right now and they do not want to be on the backside if it takes off. From an operator standpoint, it has been brought up how to make use of cryptocurrency, whether it is a cryptocurrency

discussed today or one that the operator may create themselves. This conversation is happening, but it has not been pressing.

MR. GIBSON:

I thought that one answer to the volatility issue might be tethering cryptocurrencies to the fiat dollar. It is disappointing to hear from the Federal Reserve Bank of San Francisco that that has not been a solution. That was something that the GCB has talked about internally. Even the algorithmic approach, with multiple cryptocurrencies weighed or other pieces of a weighted equation, does not seem to be the answer. The GCB is still searching for a way to ensure that tax dollars are not lost if cryptocurrency is allowed to be used in gambling transactions.

CHAIR NEAL:

There is a broader sense of fear in legitimizing alternative currency. Tying it to a fiat currency further establishes cryptocurrency as legitimate. There is fear that cryptocurrency could break the traditional market.

MR. KIECKHEFER:

Today, the Vice Chair of the Federal Reserve testified before the U.S. House of Representatives about the prospect of creating a central bank digital currency, which is not a cryptocurrency; it is more like a digital dollar. If a central bank were to create something along those lines, that would initiate the technology pieces within the gaming industry that would then enable use for cryptocurrency as well.

CHAIR NEAL:

I am not a fan of that idea. I want to protect Nevada consumers from fraud and various things. I see that as an open doorway.

MR. KIECKHEFER:

The GCB and the Gaming Commission are committed to protecting consumers. Ensuring people are able to wager safely in a stable environment is a critical concern to the regulatory structure of gaming in Nevada.

There was no further discussion on this agenda item.

VII. SCHEDULING OF FUTURE MEETINGS.

The next meeting of the Joint Interim Standing Committee on Revenue was not scheduled.

VIII. PUBLIC COMMENT.

There was no public comment.

IX. ADJOURNMENT.

Chair Neal adjourned the meeting at 3:20 p.m.

Respectfully submitted,

_____
Anna Freeman, Committee Secretary

APPROVED:

_____
Senator Dina Neal, Chair

_____
Date