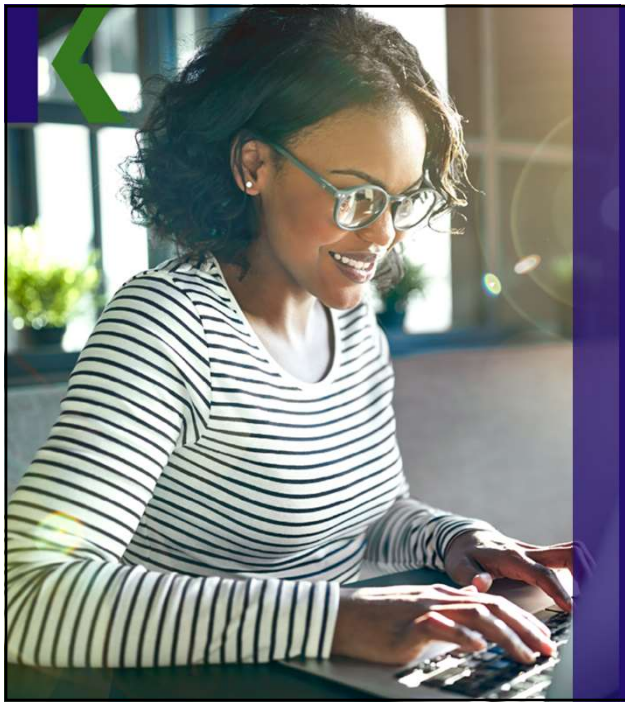

Cryptocurrency Accounting

(CRA2)

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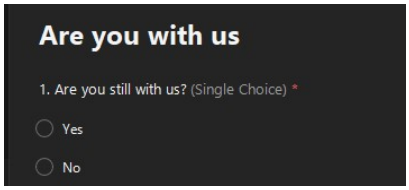
Tips for a Successful Experience

- **Technical Difficulty?** Try refreshing your page, reconnecting to the class, or rebooting (chat the moderator if you do this, so they can keep track of your presence). Also, logging in under your company's VPN may cause technical difficulty. Turn off your pop up blocker! Tech Support Team 866.265.1561 Option 1 then Option 2
- **Earning CPE:** Throughout the presentation a presence manager will pop up to check your attendance. Answer the questions with the appropriate response to record your attendance. Credit is earned by acknowledging 75% of these pop-ups per hour.



- **Chats:** You may be asked to reply to the moderator in the chat box to confirm attendance. Please be aware of any chats.
- **Questions:** Use the Chat box to ask any questions you may have about today's webcast. Someone is available to assist with your technology related concerns. The instructor will address your content related questions during the presentation or follow up after.
- **Once you are logged in please do not log out even during breaks.**

Agenda

- Unit 1: Introduction to Cryptocurrency for Accountants
- Unit 2: Cryptocurrency Use Cases, Trends, and Regulatory Issues
- Unit 3: Practical Cryptocurrency Accounting
- Conclusion
- Q&A

Unit 1

Introduction to Cryptocurrency for Accountants

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Blockchain Basics for Accountants

- Blockchain is a distributed, decentralized ledger where transactions are recorded and confirmed in a pseudo-anonymous manner.
- Transactions, once recorded, cannot be edited / modified or changed. This makes blockchain immutable and tamper resistant.
- Data on the blockchain is stored in blocks, and these blocks are cryptographically connected in a linear chain. Each block is cryptographically hashed, which makes the data secure.
- Data on the blockchain is accessible to the nodes that are connected to the network. Each node has a copy of the entire database, and it is the blockchain technology that connects these nodes and executes the consensus protocol, based on which transactions are validated and transmitted.

Cryptocurrency Basics for Accountants

- Cryptocurrencies enable secure digital payments without the use of third-party intermediaries. Cryptocurrencies use various cryptographic techniques and encryption algorithms that make the transactions recorded on the blockchain secure, reliable, and tamper-resistant.
- Unlike fiat currencies, cryptocurrencies are generally not issued by a government or a public or private entity. This has made it difficult to use cryptocurrency as legal tender in different financial jurisdictions throughout the world.
- Blockchain and cryptocurrency are not the same. Cryptocurrency is an application of blockchain.
- Two cryptocurrencies—Bitcoin (BTC) and Ether (ETH)—made up ~60% of total crypto market capitalization as of December 31, 2021.

Cryptocurrency Basics for Accountants (cont.)

- It all started with the 2008 white paper, "Bitcoin: A Peer-to-Peer Electronic Cash System":
  - Satoshi Nakamoto (the name taken by an anonymous entity or group of entities) published the white paper to explain how Bitcoin can facilitate peer-to-peer financial transactions without the need for intermediaries.
  - Then, in 2013, Vitalik Buterin, known for building Ethereum (ETH), also impacted the cryptocurrency movement. Ethereum added to the use cases of cryptocurrencies with the creation of tokens (called ERC-20 tokens) that are built on the Ethereum network.
    - The launch of Ethereum in 2013 added many more smart contract-based use cases for cryptocurrencies.

Cryptocurrency Basics for Accountants (cont.)

- Cryptocurrency can be classified into many forms, based on its use cases and utility:
  - Cryptocurrency in its native forms, like Bitcoin (BTC) and Ether (ETH)
  - Tokens, such as Cardano (ADA) and Algorand (ALGO), which are built on top of an existing blockchain (primarily Ethereum)
  - Stable coins, like USD Coin (USDC) and Gemini USD (GUSD), which are cryptocurrencies based on a fiat, typically at a 1:1 ratio
  - Central bank digital currency (CBDC), like digital yuan, which are stable coins issued and regulated by a central government authority
- Total crypto market cap dropped from $2 trillion in 2021 to $1 trillion in 2022

Current State of Cryptocurrency Adoption

According to fintech analytics company Portfolio Insider, the current Bitcoin adoption rate has been outpacing the internet's user growth rate. Cryptocurrency adoption will likely reach 1 billion users by 2025 (2X internet adoption).

- Increasing numbers of companies in the US are accepting crypto as payments from customers, offering crypto as payment to vendors and contractors, and using it to pay their employees.
- Banks are exploring adding offerings like crypto custody services. Major players are planning to roll out bank accounts that pay interest in Bitcoin.
- Enterprises are increasing their market share as they start accepting crypto as payment from customers, using payment processors like BitPay.
- Credit card companies like Visa and Mastercard have started bringing crypto into their platforms.

Current State of Cryptocurrency Adoption (cont.)

- Exchanges like Coinbase and Robinhood went public in 2021.
- Crypto marketplaces have recently arisen to facilitate the buying, selling, and swapping of crypto currencies, including non-fungible tokens (NFTs).
- Decentralized Finance (DeFi) tools have recently arisen and can replace traditional financial systems of trading, lending, and borrowing.

Current State of Cryptocurrency Adoption (cont.)

Key Events - 2022

- February 2022 - Crypto Bowl in Super Bowl; significant advertising by major crypto companies
- March 2022 - Axie Infinity was hacked with $625 million, of which only $30 million was recovered.
- February 2022 – Fed US interest rate rose by 25 bps
- May 2022 – The fall of an algorithmic stablecoin, Terra-LUNA
- June / July 2022 – Contagion effect of Terra Luna
    - Fall of Singapore-based hedge fund, Three Arrows Capital (3AC)
    - Fall of US based exchange, Voyager
    - Fall of centralized crypto lender, Celsius

Current State of Cryptocurrency Adoption (cont.)

Key Events - 2022

- July 2022 - NFT trading volumes fell from ~$5 billion in January to under $1 billion
- Extended crypto winter, Mass layoff's
- September 2022 – The Eth "merge" : Upgraded network from a proof-of-work consensus to proof-of-stake
- October 2022 - Largest crypto hack of $718 million from decentralized finance (DeFi)
- November 2022 – The fall of crypto trading company, FTX, and their CEO

Cryptocurrency: Key Definitions

- **Fiat vs. cryptocurrency**
  - Fiat is legal currency that is generated by a sovereign government. It is issued by a central bank and controlled by the central government. Examples of fiat include the US dollar, the euro, and the British pound.
  - Cryptocurrency is a digital asset created on top of a blockchain, and it is intended to be decentralized.
- **Tokens / Altcoins**
  - A token is a form of digital asset that is created using blockchain technology, for certain utilities or purposes.
  - Tokens are typically built on top of another cryptocurrency blockchain like Ethereum. Tokens are also called "altcoins."

Cryptocurrency: Key Definitions (cont.)

- **Tokens / Altcoins**
  - Non-fungible tokens (NFTs): These represent the right to ownership of a unique intangible asset on the blockchain and symbolize the digital creation of a real-world asset.
  - Governance tokens: These are decentralized tokens that give their holders voting rights and authority over a protocol that does not have a board of directors or any central governing body.
  - Security tokens: These tokens can be analogized to securities like stocks that operate in the traditional capital market.
  - Utility tokens: These are tokens used for utilities like rewards and loyalty programs. They represent units of value—such as points in blockchain-based video game apps—that holders can use to purchase merchandise within an ecosystem.

Cryptocurrency: Key Definitions (cont.)

- **Nodes**
  - A node is a copy of the ledger, containing a complete record of all the transactions recorded on the blockchain and operated by a participant of the blockchain network.
- **Distributed ledger technology**
  - Distributed Ledger Technology (DLT) is a consensus of shared, digital data that is geographically spread across multiple sites, countries, or institutions. Blockchain is a type of DLT.

Cryptocurrency: Key Definitions (cont.)

- **Wallets: Hot and Cold**
  - A wallet is where you hold your cryptocurrency, just like holding cash in a physical wallet, except that a crypto wallet is digital and can be connected to the internet or disconnected from the internet and created offline.
  - A hot wallet is connected to the internet, while a cold wallet is not.
- **Public and private keys**
  - Keys are long strings of random alphanumeric cryptographic code that are generated by the blockchain.
  - Public keys are like account numbers that can be shared with others.
  - Private keys are like email account passwords, with multilevel authentication.

Cryptocurrency: Key Definitions (cont.)

- **Consensus mechanisms**
  - Cryptocurrencies use consensus mechanisms as validators on the blockchain to follow certain sets of protocols to validate transactions before they get posted on the blockchain.
  - Two major types of consensus mechanism are (1) Proof of Work (PoW) and (2) Proof of Stake (PoS).
  - Using these protocols, new transactions can be verified and added to the blockchain, and new tokens can be created. PoW was pioneered by Bitcoin.
  - The ETH Merge:
    - In September 2022, Ethereum which used to be based on a proof-of-work mechanism, completed its transition to proof-of-stake consensus
    - eliminated proof-of-work and reduced energy consumption by about 99.95%.

Cryptocurrency: Key Definitions (cont.)

- **Smart contracts**
  - Smart contracts are sets of codes based on business logic that are designed to execute a computer program without manual intervention, once the program is running.
  - Benefits of Smart Contract:
    - Increased process efficiency due to automation resulting in opportunities to save costs
    - Increased trust and transparency because there's no third party involved once the contract is executed
    - Increased speed of processing transactions
    - Higher security because of the underlying blockchain technology

Cryptocurrency: Key Definitions (cont.)

- **Public and private blockchain**
  - A public blockchain is a distributed, open, and decentralized ledger of encrypted information, where participants can read, write, and view data. For example, Bitcoin and Ethereum are public blockchains.
    - There is no single participant with complete control of the network or the data on the network.
  - A private blockchain is managed by a single entity or a group of entities, based on certain rules or consensus, and the network is not open for anyone to participate unless permitted.
    - This is a more energy efficient network.
- **Gas fees**
  - Gas is the fee that is required for an Ethereum transaction to execute successfully. Gas fees are paid in ETH (Ether, Ethereum's native currency).

Cryptocurrency: Key Definitions (cont.)

- **Decentralized Platforms**
  - Decentralized platforms refer are blockchain based platforms that operate on a decentralized network or distributed ledger where peer to peer transactions can be facilitated without intermediaries in a secure and safe manner.
  - These platforms typically uses an automated market-making (AMM) system, where trades are executed through smart contracts, and liquidity is provided by users who pool their funds together.
  - Examples of decentralized platforms are: Uniswap, Aave, Ribbon
  - Advantages over traditional platforms
  - Decentralized platforms also come with their own risks, such as smart contract vulnerabilities and market volatility.

Cryptocurrency: Key Definitions (cont.)

- **On-chain and off-chain transactions**
  - On-chain transactions are blockchain-based transactions that occur when processed and successfully broadcast on the blockchain network.
    - These incur higher costs than off-chain transactions and possible delays in processing time.
  - Off-chain transactions are blockchain-based cryptocurrency transactions that occur outside of the blockchain network.
    - These incur lower costs than on-chain transactions and offer real-time immediate settlement, with a higher level of anonymity that on-chain transactions.

Cryptocurrency: Advantages

- Increased security
- Real-time transaction updates
- Tamper-free and irreversible record history, resulting in increased authenticity of data
- Fraud protection
- Lower transaction costs
- Reduced processing time
- Smart contract benefits

Cryptocurrency Accounting Risk Considerations

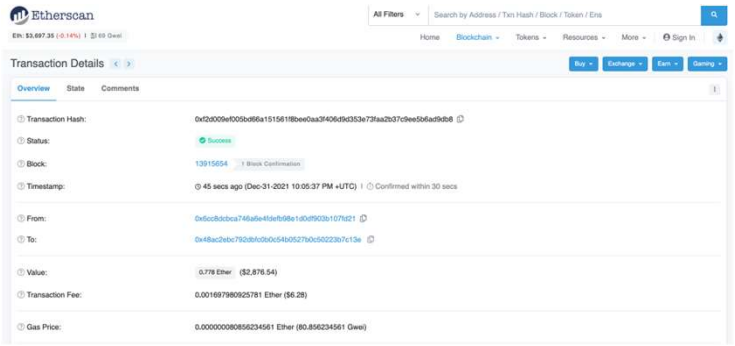
- Increased fraud risk over blockchain transactions due to the following:
  - Weak controls over key management
  - Inappropriate wallet access rights
  - Lack of segregation of duties, due to inappropriate permissions to the participants in the ecosystems
- Risk of incomplete information that could lead to inaccurate and unreliable reporting.
- Disintegrated systems that do not connect with blockchain without significant customization / integration
- Integrity of smart contracts and vulnerabilities in the underlying code
- Lack of standardized laws and regulations
- Lack of accounting, audit, and tax guidelines, inconsistency in valuation approaches, and lack of guidance
- Reliability of information received from third parties and their controls over reporting

Cryptocurrency Accounting Risk Considerations (cont.)

- Risks due to collusion with counter parties and weak internal controls
- Difficulties with real-time reconciliation and monitoring, due to several disintegrated systems and data hosted in multiple places, including on-chain and off-chain
- Risk of unreliable, inaccurate, and incomplete data output, due to input of inaccurate data from the blockchain that can never be altered (aka, "garbage in, garbage out")
- Difficulties in keeping up with the continuous evolution of blockchain technology and development of use cases
- General information technology and governance risks

Snapshot of a Transaction from ETH Block Explorer

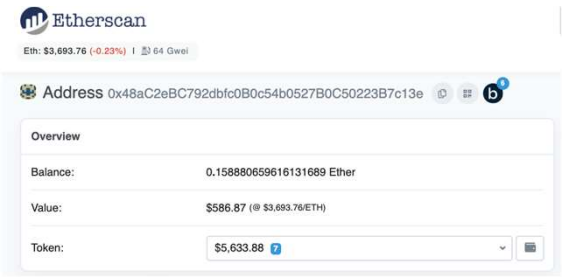
This is a snapshot of a transaction in ETH from the ETH public block explorer, Etherscan. As displayed in the snapshot, information such as transaction ID, status of the transaction, block number, timestamp of when the transaction was confirmed on the blockchain, the "To" and "From" public addresses, the transaction fee, the gas fee, and the value of the transaction, along with the number of ETH transacted, is displayed on the public block explorer. The identity of the sender and the receipts are not disclosed.



Source: https://etherscan.io

Snapshot of a Transaction from ETH Block Explorer

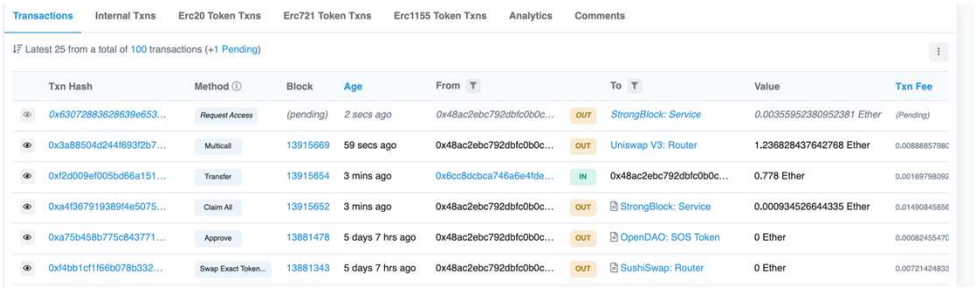
This is a snapshot of the balance in ETH at the recipient's address, as displayed in the ETH public block explorer, Etherscan.



Source: https://etherscan.io

Snapshot of a Transaction from ETH Block Explorer

This is a snapshot of a portion of the transaction history of the recipient, as displayed in the ETH public block explorer, Etherscan. Information such as transaction ID, "To" and "From" addresses, the number of ETH and value of the transaction at the time the transaction occurred, block size and age, and the transaction fee are visible to the public.



Transactions | Internal Txns | Erc20 Token Txns | Erc721 Token Txns | Erc1155 Token Txns | Analytics | Comments

Latest 25 from a total of 100 transactions (+1 Pending)

Txn Hash	Method	Block	Age	From		To	Value	Txn Fee
0x630728836286 39e653...	Request Access	(pending)	2 secs ago	0x48ac2ebc792dbfc0b0c...	OUT	StrongBlock: Service	0.00355952380952381 Ether	(Pending)
0x3a88504d244f693f2b7...	Multicall	13915669	59 secs ago	0x48ac2ebc792dbfc0b0c...	OUT	Uniswap V3: Router	1.236828437642768 Ether	0.0088857980
0xf2d009ef005bd66a151...	Transfer	13915654	3 mins ago	0x6cc8dcbca746a6e4fde...	IN	0x48ac2ebc792dbfc0b0c...	0.778 Ether	0.00169798092
0xa4f367919389f4e5075...	Claim All	13915652	3 mins ago	0x48ac2ebc792dbfc0b0c...	OUT	StrongBlock: Service	0.000934526644335 Ether	0.01490845856
0xa75b458b775c843771...	Approve	13881478	5 days 7 hrs ago	0x48ac2ebc792dbfc0b0c...	OUT	OpenDAO: SOS Token	0 Ether	0.00082455470
0xf4bb1cf1f66b078b332...	Swap Exact Token...	13881343	5 days 7 hrs ago	0x48ac2ebc792dbfc0b0c...	OUT	SushiSwap: Router	0 Ether	0.00721424833

Source: https://etherscan.io

Unit 2

Cryptocurrency Use Cases and Latest Trends

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Current Use Cases of Cryptocurrency

- **Banking the unbanked:**
  - Premise of Bitcoin is to facilitate peer to peer financial transactions without any intermediaries
  - Financial inclusion for people around the world who do not have access to a bank account
- **Crypto for balance sheet and crypto for payments:**
  - Treasury management
  - Accepting crypto as payments for merchandise
  - Cross border payments
  - Rewards and rebates
  - Crypto as payroll
  - Investment – Buy, sell, swap, trade

Current Use Cases of Cryptocurrency (cont.)

- **Utilities of tokens**: Tokens such as ERC-20 are built on top of existing blockchain and are generally referred to as altcoins. Each token is designed to have a specific use case or function. Some of the use cases of tokens are as follows:
  - Tokenizing real-world assets: Real estate, copyrights, and other real-world assets can be tokenized. Fractional ownership of assets is possible with tokenization.
  - Non-fungible tokens ("NFTs"): These are crypto assets that have a unique identification code and metadata that distinguish them from each other. They represent ownership of unique items.
  - Gaming: Crypto tokens are also used in the gaming world, where they serve as a medium of exchange within the gaming environment for goods or services, perform certain gaming actions, and more.

Current Use Cases of Cryptocurrency (cont.)

- **Utilities of tokens (cont.):**
  - Storage: Crypto platforms allow users to rent out unused free space on their disk and earn passive income on it.
  - Decentralized Finance ("DeFi"): DeFi is an emerging financial technology that is based on secure blockchain-based distributed ledgers and does not need an intermediary like a bank or a broker. DeFi tools offer buy / sell / swap on a decentralized exchange, high-yield crypto interest-bearing accounts, lending, and more.

Considerations for Companies Transacting in Crypto

- Accounting impacts
- Tax impacts
- Audit considerations
- Information security risks
- Alternative ways of accepting and transacting crypto without any or material impact on books, taxes, and information security risk considerations

Major Recent Regulatory Changes

- **Office of the Comptroller of the Currency (OCC):**
    - The OCC is charged with regulating national banks.
    - In 2020, the OCC confirmed the authority of a national bank to provide cryptocurrency custody services.
    - In 2021, the OCC confirmed that a national bank may use new technologies, including independent node verification networks (INVNs) and related stablecoins, to carry out bank-permissible functions, such as payment activities.
    - New OCC chief signals greater caution on crypto.

Major Recent Regulatory Changes (cont.)

- **Infrastructure bill and its impact on crypto**
    - The $1 trillion US infrastructure bill was signed into law by President Joe Biden in 2021.
    - The bill has provisions that would allow the IRS to tax cryptocurrency trades and yield ~$2.8 billion in tax revenue. (Source: https://www.bloomberg.com/news/articles/2021-11-17/how-taxing-crypto-got-changed-by-infrastructure-law-quicktake?sref=gni836kR)
    - Projected date of enforcement is 1/1/2024
    - The policy on cryptocurrency titled "Information Reporting for Brokers and Digital Assets" mandates that cryptocurrency brokers report transfers of digital assets (like a traditional broker would report the sale of a stock or bond).
    - The bill would require crypto brokers to report activity to the IRS and require businesses to disclose trades of digital assets over $10,000.
    - Wash sale rule
    - The definition of brokers is too broad and unclear. It could include people who engage in any kind of cryptocurrency transaction, including miners, stakers, and software developers.

Major Recent Regulatory Changes (cont.)

- **Tax standards: IRS**
  - Virtual currency is treated as property for US federal tax purposes, and rules for property tax apply; few clarifications on forked assets and tax reporting have been made by the IRS.
  - There are no plans for a specific voluntary disclosure program, but the IRS encourages all digital currency holders to self-report.
  - IRS added a yes-or-no question to the front page of the 1040 income tax form, asking whether filers had sold or exchanged virtual currencies
  - IRS has started collecting vast amounts of data on blockchain transactions, has subpoenaed crypto exchanges, and has worked on coordinating enforcement with foreign governments.
  - IRS is asking exchanges like Coinbase and Kraken and crypto companies like Circle to turn over customer information on cryptocurrency trades.
  - IRS requires reporting of any transfer worth $10,000 or more.

Major Recent Regulatory Changes (cont.)

- **Legalization of crypto in El Salvador**
  - In June 2021, President Nayib Bukele declared Bitcoin to be legal tender in his country of El Salvador.
  - Effective September 7, 2021, businesses in El Salvador are required to accept Bitcoin for all payments.
  - An official Bitcoin wallet, Chivo, was launched.
    - New users received a sign-up bonus of $30 in Bitcoin.
    - 200 Chivo ATMs were deployed.
  - Issues with legalization of Bitcoin as legal tender:
    - Technical challenges: server capacity issues, disabled app installs, transaction failure on launch
    - Money-laundering problems
    - Mass adoption is not easy with the digital asset.
      - Price volatility
    - Immediate negative implications for the country's credit rating with S&P Global

Major Recent Regulatory Changes (cont.)

- **Accounting: FASB / AICPA**
  - Practical guide for accounting and audit of digital assets issued by the AICPA
  - No accounting standard yet
  - Digital asset treated as intangible asset vs. fair-value accounting
- **Other regulatory updates**
  - Financial Industry Regulatory Authority (FINRA)
  - Commodity Futures Trading Commission (CFTC)
  - US Financial Crimes Enforcement Network (FinCEN)
  - Securities and Exchange Commission (SEC)

Major Recent Regulatory Changes (cont.)

- **Information Security Risk**
  - Information security risk arises from the inherent vulnerabilities in cryptocurrency exchanges and wallets, making them susceptible to attacks such as hacking, phishing, and ransomware
  - Smart Contract Vulnerabilities:
    - Reentrancy
    - Integer overflow and underflow
    - DoS attacks
    - Timestamp dependence
    - Gas limit vulnerabilities
    - Authorization vulnerabilities
    - Dependency vulnerabilities

Unit 3

Practical Accounting Applications of Cryptocurrency

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Classification Considerations for Digital Assets on the Balance Sheet

Step #1: Determine if the digital asset meets the definition of an asset under relevant accounting standards.

Step #2: If the digital asset meets the definition of an asset, determine what type of asset it is, based on the definitions of various asset classes under accounting standards. The following are four major classes of assets under current accounting guidance:

1. Cash or cash equivalents
2. Inventory
3. Financial instruments
4. Intangible assets
5. Fair Value Accounting

Classification Considerations for Digital Assets on the Balance Sheet (cont.)

The definitions of these asset classes are as follows:

- **Cash or cash equivalents**: This is legal tender that is issued and backed by a government and accepted as a medium of exchange.
  - Because digital assets are not legal tender issued by a government, they do not qualify under this definition.
  - Note that the definition requires the asset to be issued by the government to qualify for this classification. Central bank digital currencies (CBDC), such as e-yuan, could qualify under this definition.
- **Inventory**: These are purchased and held in the ordinary course of business, with the intent to sell. Under US GAAP, these assets need to be tangible. Under IFRS, inventory can be intangible assets. Under IFRS and US GAAP, inventory is recorded at the lower of cost and net realizable value.
  - Because digital assets are not tangible, they do not qualify under this definition.
  - Under IFRS, inventory does not need to be tangible. Hence, a case can be made that digital assets may meet this definition; however, trading volume needs to be considered to see if any given digital assets qualify as "held in the ordinary course of business."

Classification Considerations for Digital Assets on the Balance Sheet (cont.)

- **Financial instruments**: These provide the holder with a contractual right to receive or exchange cash or a financial instrument. IFRS and US GAAP allow measurement of the asset at fair value and recording of changes in fair value in profit and loss.
  - Digital assets are not legal tender and generally do not have a contract backing any right to receive or exchange cash or a financial instrument. Hence, they do not fall under this definition.
  - Depending on the contractual terms, certain crypto arrangements may be considered financial instruments. For example, cryptocurrency futures that settle in cash could be considered derivatives and thereby accounted for as financial instruments, based on this definition.
  - Cryptocurrency held by companies that fall within the scope of investment company status under ASC 946 could fall under the financial instrument definition.

Classification Considerations for Digital Assets on the Balance Sheet (cont.)

- **Intangible assets**: These assets are not physical in nature and can have definite or indefinite lives. Under US GAAP, indefinite-lived intangibles are initially measured at cost and need to be tested for impairment annually or more frequently, based on triggering events. Under IFRS, intangible assets are accounted for either at cost or revaluation at fair value at the date of the revaluation if an active market exists, less any subsequent accumulated impairment losses.
    - Being purely digital in nature and indefinite in life, cryptocurrencies may meet the definition of "indefinitely lived intangible assets" under both US GAAP and IFRS.
    - Accounting treatment of digital assets would follow the intangible-asset guidelines under ASC 350 under US GAAP. ASC 350 requires the asset to be initially recorded as an intangible asset at cost. A decline below cost in a quoted price on an exchange may be an event indicating that it is more likely than not that the digital asset is impaired.

Accounting Considerations Relating to How Digital Assets Are Acquired

Digital assets can be acquired in several ways, and each of the ways may have a different accounting treatment and may require application of other accounting guidance, such as ASC 606 (Revenue from Contracts with Customers), ASC 815 (Derivatives and Hedging), ASC 610-20 (Other Income - Gains and Losses from the Derecognition of Nonfinancial Assets), and ASC 845 (Nonmonetary Transactions). Following are a few ways of acquiring digital assets:

- Purchasing them directly with fiat currency from an exchange or a third-party platform that sells cryptocurrencies, such as crypto ATMs and brokers
- Purchasing cryptocurrency with another cryptocurrency
- Receiving cryptocurrency as payment for goods or services
- Receiving future rights to cryptocurrency as payment for goods or services
- Receiving cryptocurrency as a donation, gift, reward, or marketing incentive
- Receiving cryptocurrency as compensation for employment
- Receiving cryptocurrency as part of a token fundraiser or crowdfunding

Accounting Considerations for Digital Assets Treated as Intangible Assets

- **Initial recognition**: Follow the intangible-asset guidelines under ASC 350 under U.S. GAAP (i.e., record the asset as an indefinite-lived intangible asset at cost, with evaluation for impairment).
- **Subsequent measurement**:
  - These assets are not subject to amortization. They are subject to annual impairment or more frequent impairment if a triggered event occurs that causes more-likely-than-not impairment of the asset.
  - If the carrying amount of the intangible asset exceeds its fair value, an entity should recognize an impairment loss. The adjusted value becomes the new basis of the asset.
  - If the value of the asset increases subsequently, no adjustment will be made to the cost, even if the value was recovered within the same reporting period.
  - If the digital asset is impaired, the entity should determine the new fair value in accordance with FASB ASC 820: Fair Value Measurement.
  - For impairment assessment, the digital asset can be batched with an individual unit of another digital asset with the same carrying value and acquisition date.

Accounting Considerations for Digital Assets Treated as Intangible Assets (cont.)

Challenges in accounting for crypto assets as intangible assets:

- Tracking cost basis of acquired assets
- Value of acquired assets
- Determining what makes up an individual unit of a digital asset
- Defining the triggered events for impairment, especially considering the volatility and the frequency of the reporting period for measuring impairment
- Fair-value measurement of the crypto asset, to determine the adjusted cost basis after impairment and the value of impairment

Accounting Considerations for Digital Assets Treated at Fair Value

- **Qualification criteria**:
  - Entities that are considered investment companies regulated under the Investment Act of 1940, investment companies that are not regulated by the 1940 Act but fall under the definition of ASC 946, and broker-dealers that fall under the definition of ASC 940 can account for crypto assets at fair value.
- **Recognition**:
  - Record the digital asset at fair value** on the balance sheet. Any subsequent changes are reflected in P/L as unrealized gain / loss with adjusted fair value on the balance sheet.

** Fair value is subject to valuation considerations under ASC 820.

Practical Accounting Best Practices for Digital Assets

- Define what the triggering events are and the frequency of the assessment. This will require management judgment and a well-documented policy. Consider having a CPA review and obtain auditor's approval.
- Ensure completeness and accuracy of the digital asset population that aggregates the data in one place. Include fiat and non-fiat acquisition of the crypto from all sources (exchanges and wallets), disposals, interwallet / interexchange transfers, etc.
- Use a consistent and reasonable approach to applying cost basis to the disposed asset (e.g., FIFO).
- If the entity is using a third-party platform to aggregate the data, then ensure that all the information is pulled accurately, the data is complete, and APIs work.
- Consider adjustments to the carrying value of the asset if the software is not set up to track and record impairment.
- Reconcile crypto transactions as part of the month-end close, along with daily tracking.
- Valuation considerations:
  - Define and document what the entity considers to be a primary market that is used as basis for valuation. If a primary market does not exist, analyze other alternatives.
  - If the entity is using third-party sources, ensure that each third-party source is reliable. Consider obtaining and reviewing SOC 1 and SOC 2, based on risk assessed.
  - Review features of the crypto asset, its utilities, rights, restrictions, as part of determining valuation.

Impact on Accounting Treatment of Digital Assets, Based on How They Are Held

Are the digital assets held in wallets that are hosted by a third party (i.e., held in a third-party custody) or are the digital assets held in self-custodial wallets?

The above question is critical in determining who has control of the digital assets, and based on the response to this question, the entity (both the digital asset custodian and the depositor) can figure out accounting treatment.

How to determine who has control of the digital assets?

Below are more factors that need to be considered in order to assess control of digital assets:

- Legal analysis to understand who has legal ownership of the digital assets
- Terms and conditions in the contractual agreement or the online terms of use during initial sign-up between the depositor and the custodian
    - What are the rights and obligations of the custodian and the depositor under the arrangement (e.g., the ability to sell, buy, transfer, or manage)?
- Existence of side agreements
- Who holds the private keys of the wallets?
- Who can execute a transaction from the wallet, based on who has the private key access in a multi-signature wallet?

Other Considerations Impacting Accounting

- Valuation:
    - Cryptocurrencies like BTC and ETH
    - Thinly traded cryptocurrencies
    - Non-fungible tokens
    - Alternatives if a primary market does not exist
- Information technology general controls
- Internal controls over financial reporting

Impacts on the Accounting Profession

- The accounting profession will evolve as the cryptocurrency industry matures and there is more clarification from peers and standard-setting bodies on accounting treatment.
- Accounting professionals have an opportunity to expand their services to consulting, advisory, and project-based work, such as internal-control framework buildout, drafting internal-control narratives and flow charts, drafting technical accounting memos, etc.
- Reducing the knowledge gap between accountants and IT professionals will require more collaboration and cross-functional skill sets.
- A deep dive into the industry and its environment will include understanding how blockchain and crypto work operationally and how entities use crypto in their business.
- Accountants should work closely with auditors, legal counsel, valuation experts, and other crypto SME to learn more about business operations and develop a control framework that will help with building accounting policies and guidelines.

Conclusion

Conclusion

- Accounting for cryptocurrencies will continue to evolve as the industry evolves and matures and there is more regulatory clarity.
- Peer groups have come together and are discussing practical applications to record transactions, while we wait on the accounting standard-setting bodies to formalize accounting guidance.
- With the help of trusted advisors and crypto SME, we are seeing more consistent application in financial reporting and disclosures than we saw two years back.
- Entities are realizing the importance of proper accounting from day one and setting appropriate processes, including automation.

Q&A

Question #1

- Do you currently account for cryptocurrency in your position?

Question # 2

Question: How are digital assets that are treated as intangible assets initially recognized on the balance sheet?

1. At fair value
2. At higher of cost or market
3. At cost and subject to annual or more frequent impairment
4. At cost, subject to amortization

Answer: # 3 - At cost and subject to annual or more frequent impairment

Question # 3

Question: Which one of the following companies can record its digital-asset investments at fair value?

1. An investment company that qualifies as one under ASC 946
2. A public company that sells merchandise
3. A crypto payment-processing company that is not an investment company, by definition
4. An accounting firm that offers bookkeeping and tax-consulting services

Answer: # 1 - An investment company that qualifies as one under ASC 946

Reminders

- **Post event evaluation:** Please complete the course evaluation that will be viewable once the session ends. We welcome your feedback!


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