Accounting Considerations for Digital Assets

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1. Introduction and overview of digital assets

1.1 Definitions and characteristics of cryptocurrency

The IFRS Interpretation Committee defined a cryptocurrency as a crypto-asset with all of the following characteristics:

1.2 Market trends in India

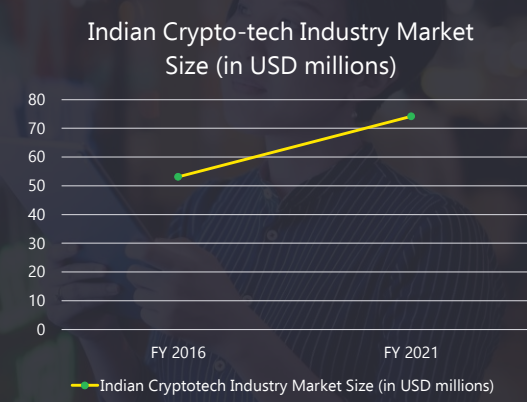
1. **Crypto Start-ups**
   Over 230 start-ups operating in India in the Cryptospace as of FY'21

2. **Crypto Employment**
   50,000 people across trading, software development, analytics and other functions

3. **Crypto tech investments**
   USD 6.6 billion investments in crypto assets by retail investors in India and investments in cryptocurrency are estimated to be over $1.5 billion in value.

4. **Projects and Proof of Concepts**
   India has witnessed a deployment of over 150 crypto projects and POCs

5. **Crypto-tech industry market size**
   Indian crypto-tech industry market size has seen a growth of approx. 40% between FY 2016 and FY 2021



Figures as per:
2021 research by NASSCOM
"RBI plans and an upcoming Bill: Where are digital currencies headed?" The Indian Express (Apr, 23, 2021)

1.3 Type of Digital Assets

Crypto Currency

- Medium of exchange
- Alternative to fiat money
- Examples: Bitcoin, Ethereum, Ripples etc

Stable Coins

- Reduce volatility
- pegged to a "stable" reserve asset
- Examples: Tether (USDT), USD Coin (USDC), Binance USD (BUSD), Terra USD (UST)

Digital Securities

- Representation of financial asset classes
- Distributed ledge technology
- Examples: Security tokens, equity stocks, ETF, debentures etc

Non-Fungible Tokens

- Unique and non-interchangeable unit of data
- Digital files such as photos, videos, and audio
- Examples: Axie Infinity, The Sandbox, Cryptopunks

1.4 Types of participants

Seller/ Buyer

Holding and/or transacting using digital assets

- These entities include investment funds, high-frequency trading companies and entities that receive digital assets as payment for goods or services.

Exchanges

Holding and/or facilitating trading of digital assets on behalf of customers

- These entities include digital asset exchanges, broker-dealers and custodians.

Issuing Companies

Creating digital assets for sale or distribution to third parties

- These entities create digital assets (e.g., cryptocurrencies, stable coins, utility tokens, security tokens) and sell or distribute them to third parties through initial coin offerings (ICOs), airdrops, direct sales or exchanges, or other means.

Validators/ Miners

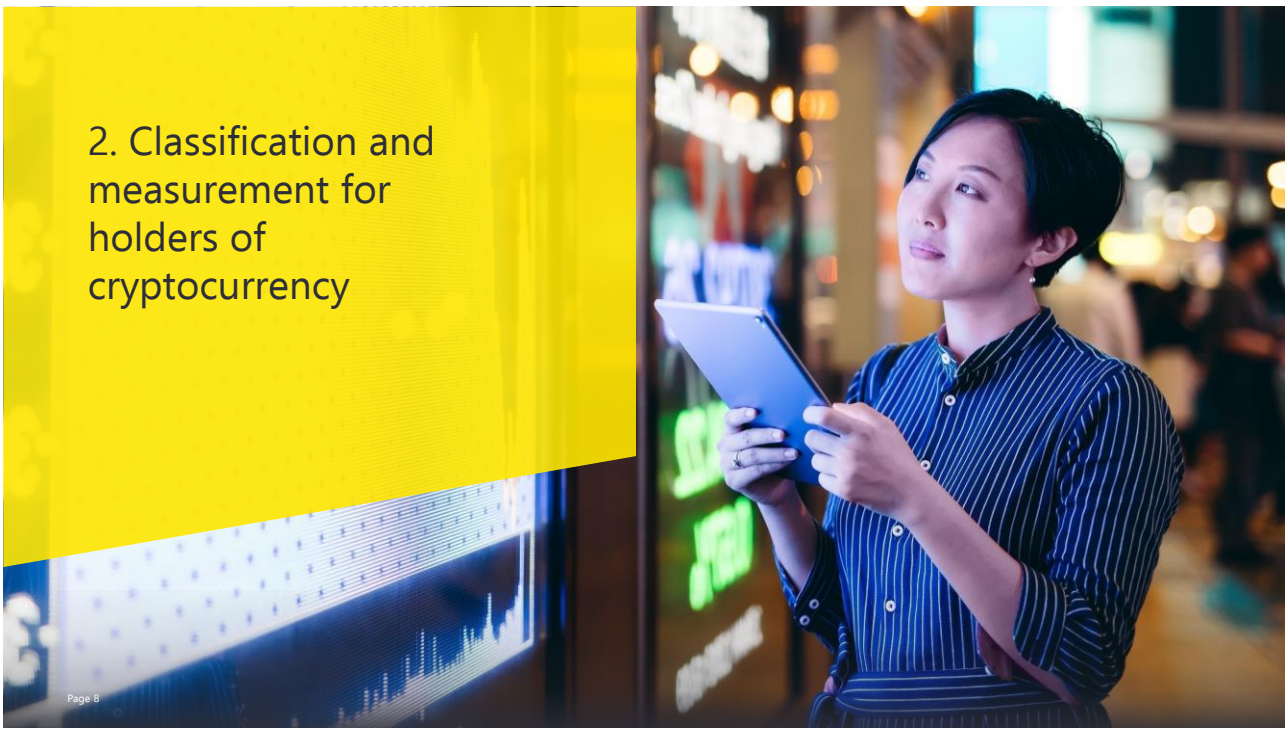
Using blockchain based business models

- These entities include validators, payment service providers, platform providers and digital wallet providers.

Reporting

Operating or participating in blockchain processes and/or consortiums

- These entities leverage blockchain technology to process and/or record transactions relevant to their financial reporting.


2. Classification and measurement for holders of cryptocurrency
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2.1 Classification

The below table provides an overview of the various classification considerations under Ind AS for holding of cryptocurrency assets.

Standard	Categorisation	Qualifying criteria	Analysis	Acceptable under Ind AS
Ind AS 32	Cash	• Medium of exchange • Basis of measurement of transactions • Legal tender backed by government	Not a legal tender and cannot be used as a medium of exchange in most jurisdictions.	No
Ind AS 7	Cash equivalents	• Short-term, highly liquid investments • Convertible to known amounts of cash • Insignificant risk of changes in value	Cryptocurrencies are subject to high degree of price volatility and hence are not readily determinable into a fixed amount of cash.	No
Ind AS 32	Financial asset	• Cash • Equity instrument of another entity • Contractual right to receive cash or another financial asset • Contract to be settled in entity's own equity instruments	Cryptocurrencies do not meet the definition of cash. It is neither an equity instrument nor contracts to be settled in equity instruments. Also, it does not give the holder any "contractual" right to receive cash or another financial asset.	No
Ind AS 16	Property, Plant and Equipment	• Tangible items held for use in production or supply of goods or services • Expected to be used for more than one period	As cryptocurrencies do not have physical form, they are not tangible items and hence cannot be classified as property, plant and equipment.	No
Ind AS 38	Intangible Assets	• Identifiable • Non-monetary asset • Lacks physical substance	Cryptocurrency holdings are separable as they can be traded on an exchange or in peer-to-peer transactions. They lack physical substance and are non-monetary assets in nature since they are subject to significant price fluctuations.	Yes
Ind AS 2	Inventories	• Assets held for sale • In ordinary course of business	In certain circumstances, cryptocurrencies could be held for sale in the ordinary course of business, for example, by a commodity broker-trader with the purpose of selling them in the near future and generating a profit from fluctuations in price.	Yes

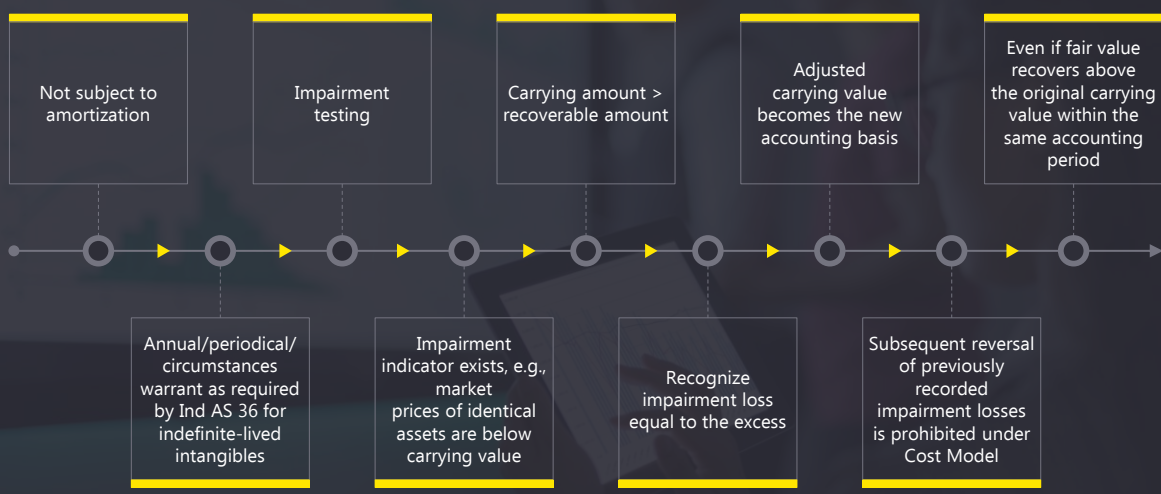
2.2 Measurement

Classification and Approach	Initial Measurement	Subsequent Measurement	Movements in carrying amount
Inventory (Ind AS 2) - Held for long-term speculation for sale in the ordinary course of business	Cost	Lower of cost and net realisable value	Profit and loss
Inventory (Ind AS 2) -Held for speculation on short-term price fluctuations (broker-trader)	Cost	Fair value less costs to sell	Profit and loss
Intangible Assets (Ind AS 38) -Revaluation Model (requires existence of an active market)	Cost	Fair value less any accumulated amortisation and impairment*	**Movements above existing carrying amount** Recognise in profit and loss to the extent of reversal of any decrease recognised in profit and loss in earlier periods and balance, if any, to be recognised in other comprehensive income **Movements below existing carrying amount** Existing revaluation reserve, if any, is reversed and balance is recognised in profit and loss
Intangible Assets (Ind AS 38) -Cost Model	Cost	Cost less any accumulated amortisation and impairment*	Profit and loss

* in most cases, crypto assets do not have specified useful lives and hence, are classified as indefinite-lived intangible assets and do not amortise.

Given the volatile nature of the assets, it is more apt to adopt revaluation model to reflect changes in fair values. This would result in a more accurate presentation of financial statements as prescribed under Ind AS 1.

2.3 Impairment for digital assets-Overview



2.4 Accounting for crypto-assets when subsequently held for sale

Recognition

If classified as intangibles initially, crypto assets may subsequently meet the criteria as per Ind AS 105 w.r.t. held for sale such as

1. available for immediate sale in its present condition
2. subject only to terms that are usual and customary for sales of such assets and
3. sale must be highly probable

Measurement

•Crypto asset to be classified as NCA held for sale is measured at lower of carrying amount or fair value less cost to sell.

Derecognition

Further, if the intention for sale is withdrawn, the held-for-sale classification will be derecognised and accounted as per principles of Ind AS 105. When reclassified, Ind AS 38 *Intangible Assets* will be applied for measurement.

A highly probable sale has the following indicators:

- the appropriate level of management committed to a plan to sell
- active programme to locate a buyer and complete the plan initiated.
- actively marketed at a reasonable price compared to its fair value
- the sale expected within one year from the date of classification (some exceptions)
- unlikely that the plan will be withdrawn or significantly changed

2.5 Determining cost for derecognition

Cost (or subsequent carrying value) should be used when entities sell or exchange digital assets for other goods or services

- Digital assets are in the form of fungible units that can be subdivided into smaller fractional units
- May not be possible to identify which specific units of digital assets were sold or transferred
- Reasonable and rational methodology to be applied for identifying which units of digital assets were sold, e.g., FIFO

2.6 Accounting of derecognition/sale

Counterparty is a customer	Revenue to be recorded
	When control is transferred
Counterparty is NOT a customer	Record as other income or apply any other more adequate accounting guidance depending on the nature of the transfer
	Gain or loss to be presented net, outside of revenue

2.7 Accounting for the receipt of digital assets as consideration under a revenue contract

Treat it as non–cash consideration when determining transaction price

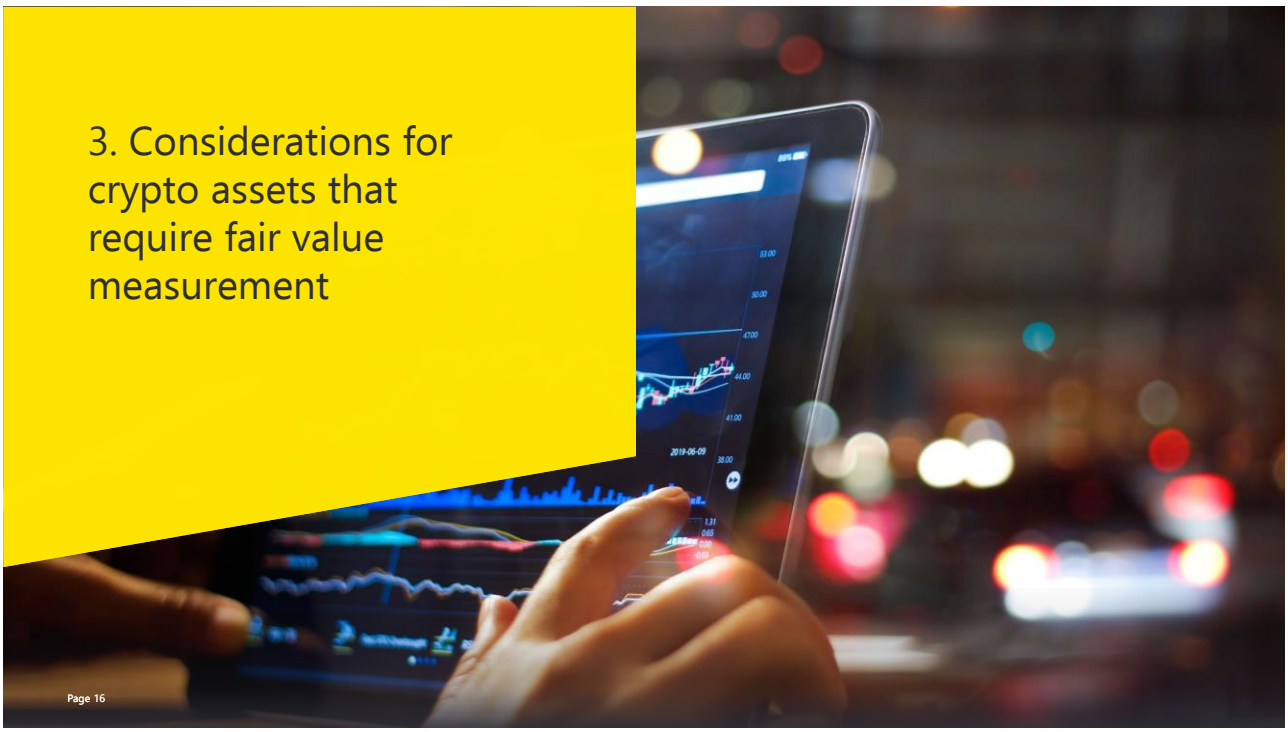
Measure at estimated fair value at contract inception

Apply accounting guidance to determine how any change in fair value should be recognised after contract inception

Non-cash consideration received should be measured at the fair value of the consideration received.

Determine whether the right to receive in future is a derivative or hybrid instrument containing an embedded derivative.

3. Considerations for crypto assets that require fair value measurement



3.1 Definition and scope of fair value measurement

Ind AS 113 defines fair value as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.

A fair value measurement assumes that the asset or liability is exchanged in an orderly transaction between market participants to sell the asset or transfer the liability at the measurement date under current market conditions, which assumes the transaction takes place either in the principal market or the most advantageous market.

Under Ind AS, FV measurement needs to be used when the entity classifies the cryptocurrency as either:

a) Inventory (Commodity broker-trader)
b) Intangibles measured under the revaluation approach
c) Intangibles held for sale

3.2 Challenges related to fair value measurement

Some of the challenges faced during valuation of cryptocurrency are:

- The market to be used for valuation since trading of most crypto-assets take place across multiple exchanges
- The timing of determination of fair value as the assets are traded 24x7
- Whether there is evidence of manipulation in the market prices
- Whether the market provides enough volume to assess the reliability and relevance of the pricing information
- The volatility of the asset market and the methodology of measurement in the markets
- Lack of comparable trades
- Disparate methods in reporting exchange currency pricing and the difference in pricing of a particular cryptocurrency depending on the exchange used for the trade

4. Presentation and disclosure

4. Presentation and disclosure

Overview

- Disclosure by holders of crypto-assets will be driven by the disclosure requirements of the relevant Ind AS standards that are applied in accounting for them.
- As a generic principle, detailed quantitative and qualitative disclosures should be given in order to comply with the overall objective in Ind AS 1 which is to provide useful information to the users of the financial statements.

The general disclosure requirements in Ind AS 1 and the events after the reporting period disclosures in Ind AS 10 could also be relevant.

General disclosures

Ind AS 1 disclosures

Material balances of crypto-assets presented separately on balance sheet

Material gains or losses from transactions presented separately in profit or loss

Description and quantity of the various crypto-assets held; their historical volatility; and the entity's reason for holding those particular crypto-assets

Ind AS 8 disclosures

Due to the unique features and characteristics of crypto-assets, a holder will need to disclose the accounting policies applied

Key judgements made in accounting for different classes of crypto-assets

Ind AS 10 disclosures

Details of any material non-adjusting events, including whether subsequent changes in the fair value of crypto-assets are significant to warrant disclosures.

Specific disclosures

Ind AS 2 disclosures

General requirements: Disclose the carrying amount by class; the entity's accounting policy for measuring inventory; the amount of inventory recognised as an expense in the period, any write-downs and reversal of write downs to net realisable value that were recognised in profit or loss; and the reason for the reversal.

Commodity broker-traders: In addition to the general requirements, disclose the carrying amount of such inventories carried at fair value less costs to sell.
The Ind AS 113 disclosure requirements for recurring fair value measurements would also apply.

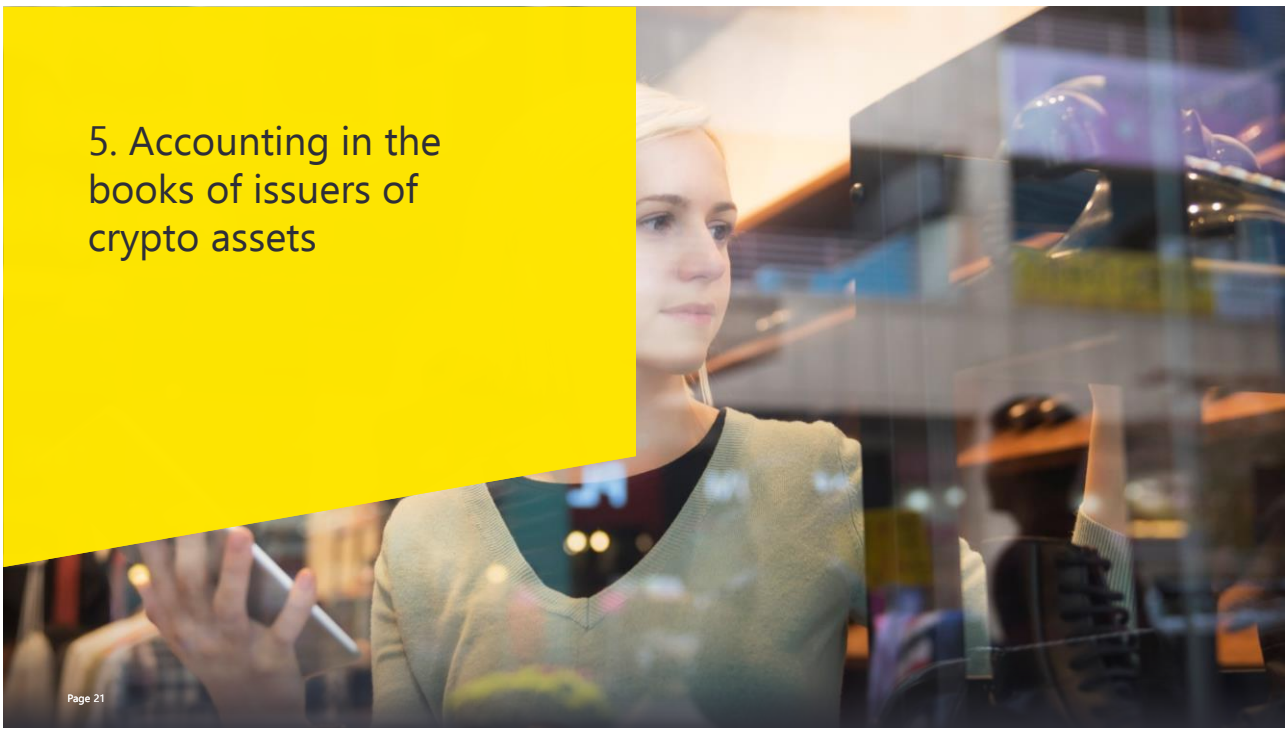
Ind AS 38 disclosures

Disclose, by class, a reconciliation between the opening and closing carrying amounts, whether the useful life is assessed as indefinite, and, if so, the reasons supporting the indefinite useful life assessment, and a description of individually material holdings.

Entities that measure intangibles under the revaluation model will also need to disclose, by class, the effective date of the revaluation, a reconciliation of the opening and closing balance of the related revaluation surplus and the carrying amount that would have been recognised had the cost model been applied.

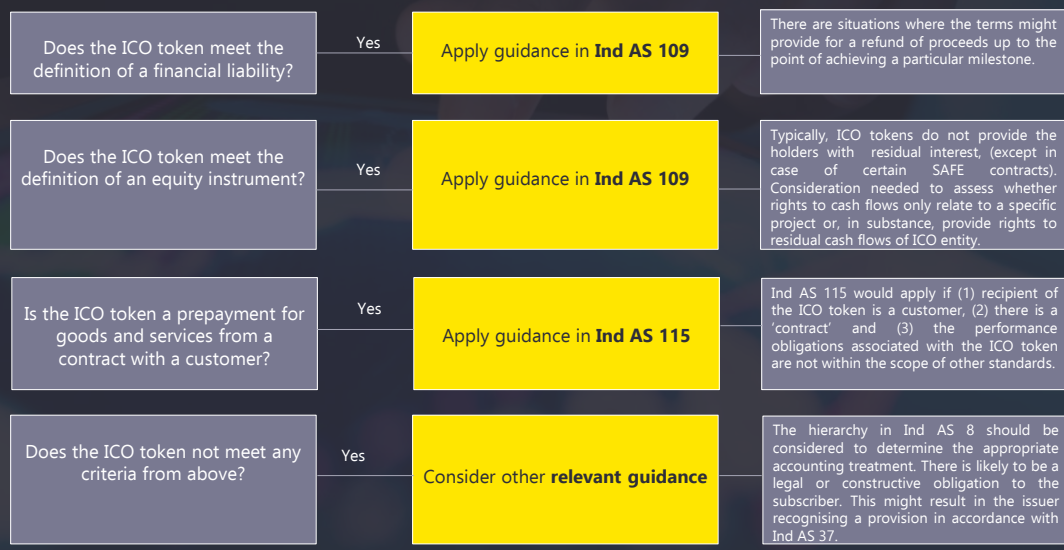
The relevant fair value disclosure requirements of Ind AS 113 would also apply.

5. Accounting in the books of issuers of crypto assets



5.1 Accounting models from the perspective of issuers

(a) Initial Coin Offerings



5.2 Accounting models from the perspective of issuers

An ICO entity does not account for generation of tokens until an exchange transaction takes place.
While assessing the accounting treatment, an entity will consider the characteristics of the ICO tokens generated.

(b) Issued ICO tokens exchanged for third party goods or services

When determining the debit side of the journal entry, an entity would consider the nature of the goods or services received and whether there are costs that can be capitalised as an asset, or if the costs are to be recognised as an expense.

The credit side of the entry is determined by the obligations that the entity incurred as a result of issuing the ICO tokens. This assessment determines the applicable standard, based on the promises associated with the ICO tokens.

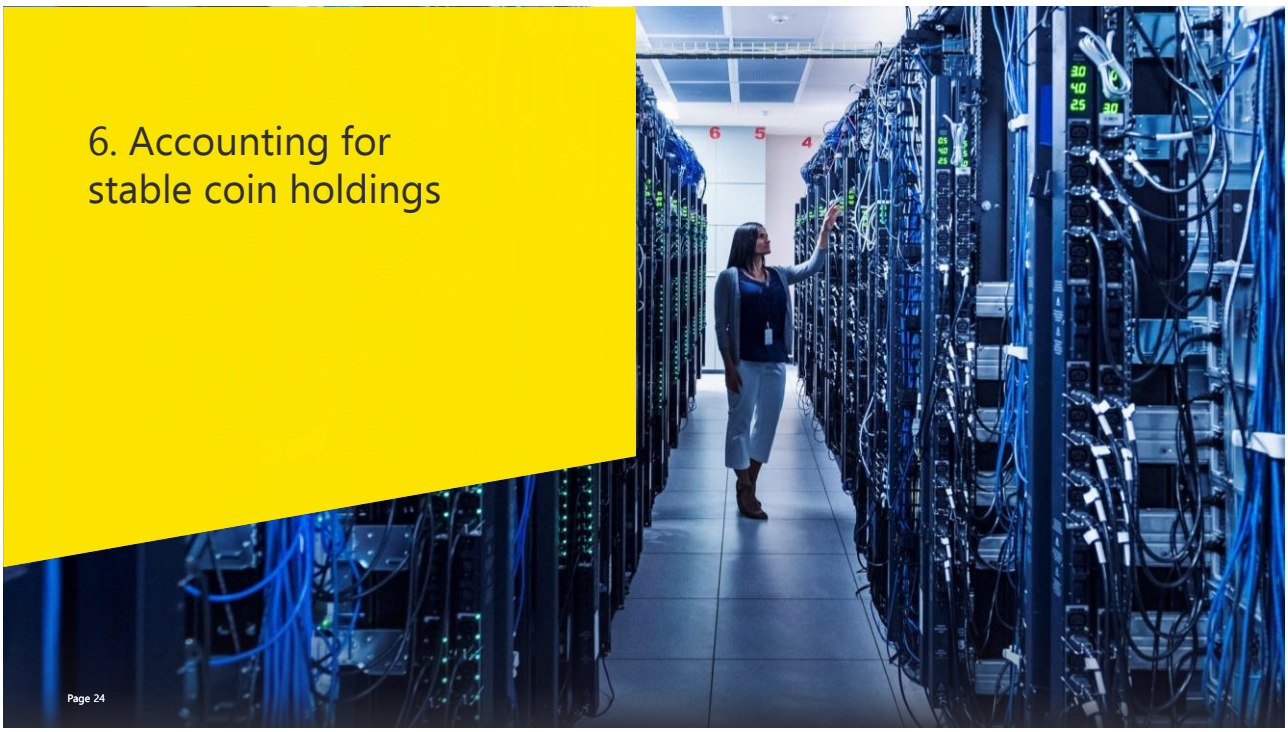
(c) Issued ICO tokens exchanged for employee services

Unless the ICO tokens meet the definition of an equity instrument of the ICO entity (that is, a contract that has a residual interest in the assets of the ICO entity after deducting all of its liabilities):

- the arrangements would not meet the definition of a share-based payment arrangement under Ind AS 102.
- Instead, they would fall within the scope of Ind AS 19 as a non-cash employee benefit.

If the tokens (not being in the nature of equity) create an entitlement to receive consideration in exchange for goods or services, the provisions of Ind AS 115 shall apply.

6. Accounting for stable coin holdings



6.1 What is a Stable Coin?

A Stable Coin is a crypto currency that is pegged to a relatively stable underlying asset or commodity.

Stable Coins

- Reduce volatility
- Pegged to a "stable" reserve asset
- E.g., Tether, USD Coin, Binance USD, Terra USD

Example

Company A issues S-coins to third party investors. S-coins are similar to cryptocurrencies except that each S-coin is backed by an ounce of physical gold. Any S-coins are redeemable any time at the option of the holder for cash at the prevailing market price of the gold.

Fiat Collateralized Stable Coins

- Backed by a stable Fiat Currency like the USD or the Swiss Franc
- Each stable coin issued must be backed by the currency in a 1:1 ratio
- The currency is deposited with a custodian who then issues the Stable Coin.

Crypto-collateralized Stable Coins

- Backed by reserves of other crypto currencies
- Ensuring the integrity of a decentralized system
- Crypto-collateralized coins address volatility through over collateralization.

Non- Collateralized Stable Coin

- Not backed by any commodity or currency.
- An algorithm perpetually monitors the price of the Stable coin.
- Automatically regulates the quantity of this type of stable coin in the market

6.2 Why Stable Coin?

Price volatility one of the most significant obstacles in the adoption of cryptocurrencies

Ordinary day-to-day users not interested in using Crypto as a medium of exchange

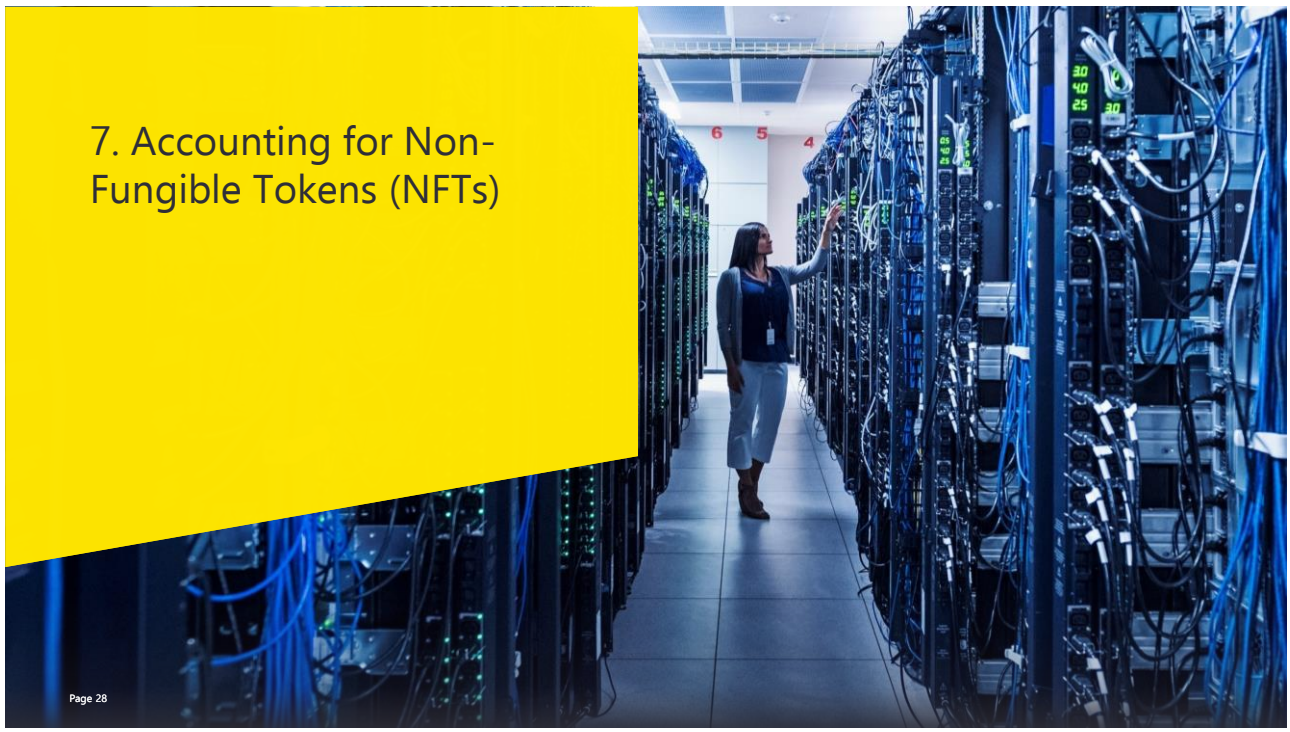
Price fluctuations also cause enormous currency risk

Needed support in protecting incomes, savings, business margins and to allow for more reasonable business planning and forecasting when transacting or saving in this medium.

6.3 Accounting for holding stable coins

Stable Coin – General	Not a legal tender, therefore is not cash
	However, certain collateralized Stable Coins may meet Ind AS 7's definition of a cash equivalent.
	Entities should assess their use of the Stable Coin in the context of their business model which would then determine the appropriate accounting policy.
Fiat collateralised stable coins	These are pegged to the value of a fiat currency in a 1:1 ratio – the value of the Stable coin mimics the value of the fiat currency.
	These Stable Coins can be redeemed for the proportionate value of Fiat currency that each Stable Coin represents and is highly liquid.
	These Stable Coins may be considered to meet the definition of a cash equivalent as defined in Ind AS 7 as they can be redeemed for cash (Fiat). This could result in this type of stable coin being accounted for in terms of Ind AS 109 Financial Instruments.
Crypto Collateralised stable coins	Definition of cash or cash equivalent is not met as per Ind AS 32 or Ind AS 7
	Not covered under Ind AS 109 since no contractual right to receive or deliver cash
	Accounting basis facts and circumstances, likely to be intangible assets/ inventory for holders

7. Accounting for Non-Fungible Tokens (NFTs)



7.1 Accounting for Non-Fungible Tokens

Holder

An NFT can be classified as an intangible asset (including IP licensing agreements), financial asset or inventory.

The terms and conditions attached to the NFT are critical in assessing what kind of rights are conveyed and accordingly what kind of asset (if any) may be recorded.

Another consideration is the impact of any contractual restrictions on reproduction or copying of NFTs

1

Issuer

The most critical consideration is identifying what has been sold.

For example, is the issuer giving up control over an asset it previously controlled and recognised on its balance sheet or is it merely giving away certain rights to use certain intellectual property, brand name or other intangible in return for consideration?

Guidance on relevant standard may need to be considered.

2

Marketplace

NFT marketplaces derive their revenue from listing fees for listing new assets, transaction fees when assets are exchanged on their platforms or commissions from users for minting new NFTs.

Other revenue streams would be custody fees for holding the NFTs and data fees for monetising the data gathered through their marketplaces and advertising revenue by backing or sponsoring featured projects.

3

8. Simple Agreement for Future Equity ('SAFE')

8.1 What is a SAFE?

Definition

A SAFE is an investment contract between a company and an investor that gives the investor the right to receive equity of the company on certain triggering events, such as a:

- Future equity financing (known as a Next Equity Financing or Qualified Financing), usually led by an institutional venture capital (VC) fund.
- Liquidity/ dissolution/ sale of the company.

Characteristics

SAFEs are analogous to a convertible debt, except for the below characteristics:

- **Maturity date**. Until a conversion event occurs, SAFEs remain outstanding indefinitely.
- **Accruing interest**. Unlike debt, SAFEs do not carry an interest rate.

Things to know about SAFEs

1. **SAFEs are not common stock.** SAFEs do not represent a current equity stake in the company. Instead, the terms of the SAFE have to be met to receive any shares in the company.
2. **SAFEs are not all created equal.** Different companies offering SAFEs use various terms to describe triggering events and provisions concerning conversion and the conversion price might be subject to different treatment from issuer to issuer.
3. **Understand what triggers the conversion of the SAFE. T**here may be scenarios where the triggers are not activated and the SAFE is not converted whereby it simply lapses unexpired.
4. **Know the terms and rights of a SAFE.** In addition to the trigger mechanism, there are a few other components of SAFEs that are relevant:
    1. **Conversion terms.**
    2. **Repurchase rights**.
    3. **Dissolution rights**.
    4. **Voting rights**

8.2 Accounting considerations for SAFEs

Liability Classification

Some SAFEs involve or are linked to a share repurchase obligation that requires the issuer to settle through a transfer of cash or other assets (even if only on certain contingent events), and that are indexed to the company's stock price, are considered a liability of the issuer.

Such events might include a liquidity event or equity raise, which can result in possible liability classification and mark-to-market accounting. The number of shares that a purchaser of a SAFE will receive is generally unknown at the time of issuance and is thus indexed to the stock price of the entity at the time of conversion.

SAFEs, in some cases, can require the issuer to deliver a variable number of shares. Further, if events triggering the settlement are beyond the control of issuer (e.g. winding up, certain mergers, etc), then it is required to be classified as an liability (subject to contingent settlement provisions as per Ind AS 32).

Equity Classification

SAFEs fulfil the criteria for equity classification if it exhibits a residual interest characteristics in the issuer's net assets.

If the issuer controls the events that may trigger settlement, it is not an obligation of the issuer to settle a SAFE. Hence, SAFEs may be classified as an equity.

9. Ind AS impact analysis for crypto-assets accounting

Standard-wise impact on crypto accounting

Standard	Impact on crypto accounting
Ind AS 1: Presentation of Financial Statements	a. Material balances of crypto-assets presented separately on balance sheet b. Material gains or losses from transactions presented separately in profit or loss c. Description and quantity of the various crypto-assets held; their historical volatility; and the entity's reason for holding those particular crypto-assets.
Ind AS 2; Inventories	a. General requirements: Disclose the carrying amount by class; the entity's accounting policy for measuring inventory; the amount of inventory recognised as an expense in the period, any write-downs and reversal of write downs to net realisable value that were recognised in profit or loss; and the reason for the reversal. b. Commodity broker-traders: In addition to the general requirements, disclose the carrying amount of such inventories carried at fair value less costs to sell. The Ind AS 113 disclosure requirements for recurring fair value measurements would also apply.
Ind AS 7: Statement of Cash Flows	a. Cash flows related to purchase/ sale of crypto-assets needs to be disclosed in operating or investing activities, based on the nature of business operations. b. Fair value change on crypto-assets exchanged as non-cash consideration to be adjusted under operating activities.
Ind AS 8: Accounting Policies, Changes in Accounting Estimates and Errors	Due to the unique features and characteristics of crypto-assets, a holder will need to disclose: a. The accounting policies applied b. Key judgements made in classification and accounting for different classes of crypto-assets
Ind AS 10: Events after the Reporting Period	Details of any material non-adjusting events, including whether subsequent changes in the fair value of crypto-assets are significant to warrant disclosures.

Standard-wise impact on crypto accounting (continued)

Standard	Impact on crypto accounting
Ind AS 12: Income Taxes	a. Holders of crypto-assets may need to consider their deferred tax position if the tax does not follow the entries in profit or loss. b. Potential deferred tax impact on provision for write-down of cryptocurrency held as inventory due to decline in NRV.
Ind AS 16: Property, Plant and Equipment	As cryptocurrencies do not have physical form, they are not tangible items and hence cannot be classified as property, plant and equipment.
Ind AS 19: Employee Benefits	If issued ICO tokens are exchanged for employee services, they would be considered as a non-cash employee benefit.
Ind AS 20: Accounting for Government Grants and Disclosure of Government Assistance	N/A
Ind AS 21: The Effects of Changes in Foreign Exchange Rates	Initial recognition: A cryptocurrency holding will be recorded using the spot exchange rate between the functional currency and the cryptocurrency at that date. Subsequent recognition: a. If measured in terms of historical cost in a foreign currency, it shall be translated using the exchange rate at the date of the transaction b. If measured at fair value in a foreign currency, it shall be translated using the exchange rates at the date when the fair value was measured.
Ind AS 23: Borrowing Costs	N/A
Ind AS 24: Related Party Disclosures	Disclose the following if there have been transactions involving exchange of crypto-assets between related parties: a. The nature of the related party relationship b. Information about transactions and outstanding balances

Standard-wise impact on crypto accounting (continued)

Standard	Impact on crypto accounting
Ind AS 27: Separate Financial Statements	N/A
Ind AS 28: Investments in Associates and Joint Ventures	N/A
Ind AS 29: Financial Reporting in Hyperinflationary Economies	N/A
Ind AS 32: Financial Instruments: Presentation	Holder a. Cryptocurrencies do not meet the definition of cash (as it is not a legal tender and cannot be used as a medium of exchange in most jurisdictions). b. It is neither an equity instrument nor contracts to be settled in equity instruments. c. Also, it does not give the holder any "contractual" right to receive cash or another financial asset. Issuer Issuer to consider the accounting under this standard basis the classification of the token (i.e. if it meets the definition of a financial liability or equity)
Ind AS 33: Earnings per Share	N/A
Ind AS 34: Interim Financial Reporting	N/A
Ind AS 36: Impairment of Assets	If carrying amount is greater than recoverable amount, impairment loss equal to the excess is to be recognized and the adjusted carrying value becomes the new accounting base.
Ind AS 37: Provisions, Contingent Liabilities and Contingent Assets	If the issuing entity has a legal or constructive obligation to the subscriber, this might result in the issuer recognising a provision.

Standard-wise impact on crypto accounting (continued)

Standard	Impact on crypto accounting
Ind AS 38: Intangible Assets	a. Disclose, by class, a reconciliation between the opening and closing carrying amounts, whether the useful life is assessed as indefinite, and, if so, the reasons supporting the indefinite useful life assessment, and a description of individually material holdings. b. Entities that measure intangibles under the revaluation model will also need to disclose, by class, the effective date of the revaluation, a reconciliation of the opening and closing balance of the related revaluation surplus and the carrying amount that would have been recognised had the cost model been applied. The relevant fair value disclosure requirements of Ind AS 113 would also apply.
Ind AS 40: Investment Property	Although cryptocurrencies are held by some entities for capital appreciation, it would be inappropriate for an entity to classify them as investment property as cryptocurrencies are not physical assets.
Ind AS 41: Agriculture	N/A
Ind AS 101: First-time Adoption of Indian Accounting Standards	Deemed cost transition approach can be availed (i.e. to consider the carrying value or fair value of the assets as the deemed cost)
Ind AS 102: Share-based Payment	If issued ICO tokens, being in the nature of equity, are exchanged for employee services, it would be accounted for as a share-based payment arrangement (i.e. equity settled) with a debit to employee benefits (P&L) and credit to SBP reserve (equity).
Ind AS 103: Business Combinations	Crypto-assets acquired in a business combination should be taken over at its fair value as on the date of acquisition. However, if the acquisition is between entities under common control, the pooling of interest method shall apply and the assets taken over shall be accounted for at its book value.

Standard-wise impact on crypto accounting (continued)

Standard	Impact on crypto accounting
Ind AS 104: Insurance Contracts	N/A
Ind AS 105: Non-current Assets Held for Sale and Discontinued Operations	If crypto-assets are classified as a NCA held-for-sale, it is to be measured at the lower of carrying amount or fair value less cost to sell.
Ind AS 106: Exploration for and Evaluation of Mineral Resources	Crypto-mining is not covered under Ind AS 106 "Exploration for and Evaluation of Mineral Resources".
Ind AS 107: Financial Instruments: Disclosures	Qualitative disclosures: a. Exposure to risk and how it arises b. Objectives, policies and processes for managing risk and method used to measure risk Quantitative disclosures: a. Summary of quantitative data about exposure to risk (i.e. liquidity risk, credit risk and market risk) arising on account of holding crypto-assets b. Concentrations of risks
Ind AS 108: Operating Segments	N/A
Ind AS 109: Financial Instruments	If the ICO token is a financial liability, the accounting would follow the applicable guidance in Ind AS 109. Since there is no fixed amortisation period and given the volatile nature of these assets, entities can opt the irrevocable choice to designate these assets at FVTPL.
Ind AS 110: Consolidated Financial Statements	Unrealised profits on sale of crypto-assets (held as inventory) between parent and subsidiary to be accounted for in preparing the consolidated FS.

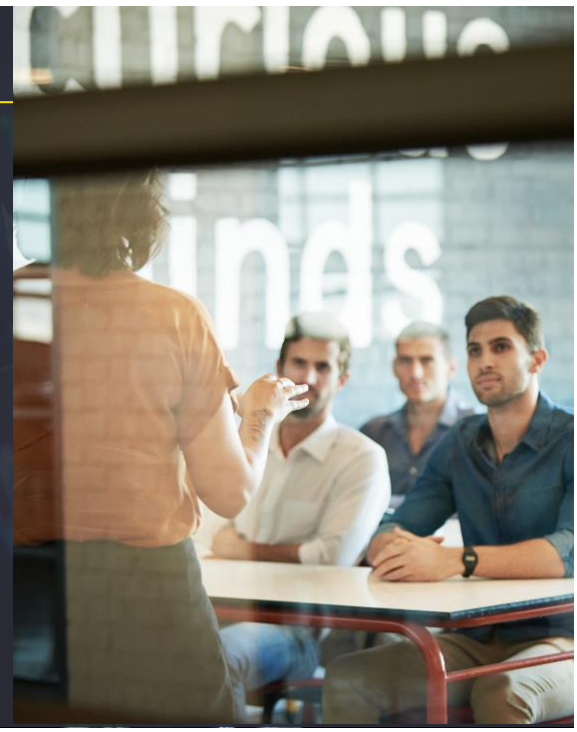
Standard-wise impact on crypto accounting (continued)

Standard	Impact on crypto accounting
Ind AS 111: Joint Arrangements	N/A
Ind AS 112: Disclosure of Interests in Other Entities	N/A
Ind AS 113: Fair Value Measurement	Disclose how fair value has been determined with appropriate reference to the disclosure requirements of this standard, in particular those relating to the fair value hierarchy.
Ind AS 114: Regulatory Deferral Accounts	N/A
Ind AS 115: Revenue from Contracts with Customers	a. Ind AS 115 would apply if (1) recipient of the ICO token is a customer, (2) there is a 'contract', (3) the performance obligations associated with the ICO token are not within the scope of other standards and (4) when the control is transferred. b. Crypto-assets received as consideration under a revenue contract to be treated as a non-cash consideration when determining the transaction price and is to be measured at fair value through profit or loss. c. Income earned by miners through receipt of transaction fees from the customer to be accounted for under this standard.
Ind AS 116: Leases	A purchaser of NFT to consider the existence of an "identified asset" and right to control the use of such asset.

Audit considerations in a digital ecosystem

Core objectives

- Overview of audit considerations in a digital ecosystem
- Independence considerations involved while accepting and executing an audit involving digital assets
- Key challenges w.r.t auditors' skills and competence
- Assessment of management's skills and competence
- Evaluating management's integrity and understanding business strategy
- Dealing with challenges related to process and controls
- Risk assessment process for an engagement involving digital assets
- Understand the use of blockchain as an audit evidence
- How digital audit impacts significant assertions of financial statements
- Other key considerations
- Assessing impact on audit conclusions and reporting
- Key takeaways



Overview

- Client acceptance and continuance
- Risk assessment and processes and controls
- Using Blockchain as an audit evidence
- Significant assertions
- Other considerations

Guidance note on independence of auditors (issued by ICAI)

SA 200, Overall Objectives…

SA 210, Agreeing the Terms…

SA 220, Quality Control…

SA 240, The Auditor's Responsibilities relating to fraud…

SA 250, Consideration of Laws and Regulations…

Revised SA 260, Communication with TCWG

SA 265, Communicating Deficiencies…

SA 300, Planning an Audit…

SA 315, Identifying and Assessing the ROMM…

SA 330, The Auditor's Responses to Assessed Risks

SA 402, Audit Considerations Relating to an Entity Using a Service Organisation

SA 500, Audit Evidence

SA 501, Audit Evidence-Specific Considerations for Selected Items

SA 520, Analytical Procedures

SA 505, External Confirmations

SA 540, Auditing Accounting Estimates

SA 550, Related Parties

SA 560, Subsequent Events

SA 570 Going Concern

SA 580, Written Representations

SA 620, Using the Work of an Auditor's Expert

Revised SA 700, Forming an Opinion and Reporting on Financial Statements

SA 701, Communicating Key Audit Matters in the Independent Auditor's Report

1. Client acceptance and continuance considerations

1. Client acceptance and continuance
Independence considerations

Independence considerations remain critical to an auditor's conformity to professional standards

Engagements in the digital asset ecosystem may introduce new or different compliance risks warranting additional consideration by the auditor.

For example, a member of the engagement team may hold digital assets issued by the entity subject to audit.

Guidance note on independence of auditors (issued by ICAI) provides examples of relationships or circumstances that create threats to compliance with the "Independence Rule

Following standards provide additional information regarding client acceptance and continuance procedures:

- Basic Principles Governing an Audit (SA 200)
- Objectives and Scope of the Audit of Financial Statements (SA 200A)
- Terms of Audit Engagement (SA 210)
- Quality Control for Audit Work (SA 220)

1. Client acceptance and continuance (Cont'd)

Auditor's skills and competencies

- Similar clients in digital ecosystem
- Applicable regulatory environment
- Applicable accounting framework
- Understand the client's operations
- Sufficient knowledge and training
- Time and resources needed
- Processes and resource

Management's skills and competencies

- Experience in the digital asset ecosystem
- Regulatory environment and areas of evolving laws and regulations
- Mode of maintaining books and records
- Engage appropriate and qualified specialists or accounting consultants
- Understand how the applicable financial reporting framework

Management integrity and business strategy

- Reputation of the client's principal owners, key management, and those charged with governance
- Nature of the client's operations, including its business practices
- Attitude of the client's principal owners, key management, and those charged with governance
- Indications of an inappropriate limitation in the scope of the work
- Money laundering or other criminal activities
- Proposed appointment of the firm and non–reappointment of the previous firm

Processes and controls, including IT

- Nature of the IT general controls, application controls, processes
- Competence of the entity's personnel involved
- Use of IT specialists
- Use of service organizations
- Due diligence procedures performed on third–party service providers
- The entity's due diligence process for transacting in new digital assets
- Protection of private keys and other customer information
- Understand the existence of cybercrime or fidelity insurance from reputable carriers

1.1 Auditor's skills and competencies
Challenges specific to digital assets

Reporting Developments
Staying apprised of regulatory, industry, technological, or financial reporting developments affecting current or potential clients that may affect the risk assessment or other aspects of the audit

Talent
Recruiting, developing, and retaining talent in a highly competitive market, particularly those qualified in the information technology and cybersecurity aspects of the audit

Supervision
Appropriately directing, supervising, and reviewing the work of the engagement team including staff, internal specialists, and multiple external specialists whose skill sets may not be familiar to the audit team

Risks
Adapting to new or different risks as the ecosystem evolves or new issues are identified

Training
Updating training curricula for current and future auditors to adapt to the rapidly evolving elements of the digital asset ecosystem, new digital assets, and the surrounding business and regulatory environment

1.4 Management's skill sets and competencies
Challenges specific to digital assets

Process and controls
Have processes and controls for maintaining appropriate books and records, including maintaining appropriate support for transactions and applying the appropriate financial reporting framework.

Personnel
Have competent personnel with ability to appropriately apply the financial reporting framework

Technology
Understand the pace at which the technology could evolve and the need for additional controls or personnel.

Unique risks
Identify the unique risks in the space and design and implement internal controls to respond to such risks.

Laws
Identify applicable laws and regulations or areas of evolving laws and regulations.

Specialists
Have access to or ability to identify the need for specialists

1.7 Management integrity and business strategy
Challenges specific to digital assets

Basics

Management may not have a sufficient understanding of digital assets, the underlying technology and protocols, or the evolving regulatory environment to identify the risks related to fraud or noncompliance with laws and regulations.

Nature

The pseudo-anonymous nature of the digital asset transactions may present an opportunity for illegal activities or fraud.

Market

Ease of entry to the market may attract those who lack integrity or a commitment to competence into the digital asset ecosystem

Laws

Noncompliance with KYC procedures, anti-money laundering (AML) procedures, and other regulations could present considerable reputation and business risks to the entity in the form of fines and penalties, both criminal and civil.

1.11 Processes and controls, including IT
Challenges specific to digital assets

Reliability
Events recorded on the blockchain are not necessarily accurate and complete, and the reliability of data obtained from a blockchain is highly dependent upon the reliability of underlying complex blockchain technology

Internal control
Entity may not have proper internal controls implemented to effectively account for and fairly present digital assets or associated transactions within the financial statements

Identity
The technology does not provide any information concerning the identity of the counterparty or the appropriate recognition or classification in the financial statements.

Access to Private key
If an entity loses access to the private key, or another party inappropriately accesses the private key and transfers the digital assets to another public address where the entity does not have knowledge of the private key, then the entity may lose control of or access to the digital assets.

2. Risk assessment & processes and controls

2. Risk assessment & processes and controls

Understanding the entity and its environment

- General — Nature of the entity
- Digital assets held and custody considerations
- Digital asset transactions
- Industry, regulatory, and other external factors
- Financing
- Financial reporting

Understanding and evaluating the entity's risk assessment process

- Management's governing documents to understand policies, procedures, and other information
- For identifying objectives and risks related to digital assets
- To identify new risks in a timely manner
- Risks related to changes in management or key personnel, including consideration of appropriate skill sets and competencies to fulfill their responsibilities

Understanding the entity's processes and controls

- Digital asset safeguarding
- Transaction monitoring and reporting
- Valuation
- Digital assets held by third parties
- Digital assets held on behalf of others

3. Using Blockchain as an audit evidence

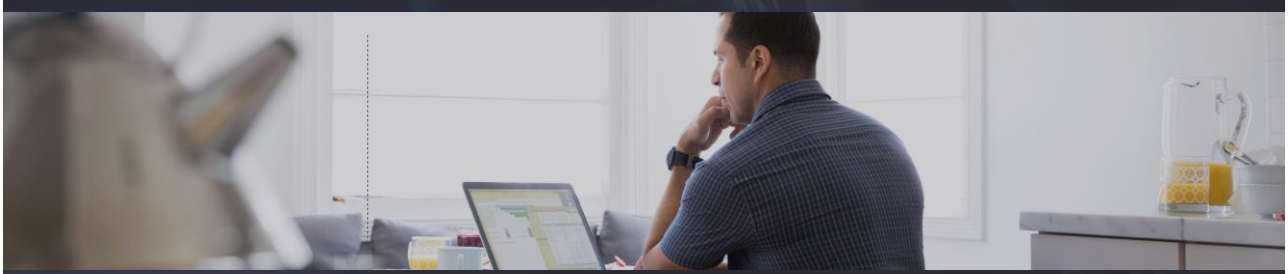
3.1 Using blockchain as audit evidence

01 Obtain public blockchain data from multiple third–party block explorers and compare the data sets to determine whether they are consistent

02 Compare the data obtained from these block explorers with the entity's books and records and other audit evidence (e.g., bank statements, contracts)

03 Consider whether a public block explorer is widely used and trusted and assess whether there are any known issues with the tool

04 Consider whether the public block explorers we are using are related to each other (e.g., whether they are owned by the same parent entity)



3.2 Using blockchain as audit evidence - Challenges

•Recording a transaction on a blockchain doesn't alleviate the risk that the transaction is

- unauthorised,
- fraudulent or illegal,
- linked to off-chain side agreement or even
- inaccurately classified due to human input error.

Auditors can have trouble verifying

- who the actual owner behind the transaction is,
- who the other counterparties participating in the transaction are or
- the legal nature of those transactions.

•It shouldn't simply be assumed that

- all blockchain protocols are effective and
- that the information recorded on them can be trusted

3.3 Using blockchain as audit evidence - Advantages

Blockchain traits that can assist in auditing

- it contains a public history of transactions and provides an immutable proof that the transaction occurred. After every transaction occurs, it gets "timestamp" proof of what happened, when and how.
- Makes the verification process faster and more cost-effective
- with multiple parties sharing a ledger in private networks, auditing on an industry level becomes accessible since there are no differences in the books,
- it enables almost real-time settlements of transactions, which makes it possible to perform an audit whenever it's required, instead of months or even years after the fact. In return, regulators can take real-time action and prevent rather than punish.
- transactions performed on ledger are permanently recorded across the nodes and cryptographically protected so they can't be modified or replaced
- Blockchain protocols are intended to make blockchains resilient to tampering

4. Significant Assertions

4. Significant assertions

- Digital assets recorded by the entity do not exist
- The data on the blockchain is not accurate
- Block explorers do not accurately extract or display information from a blockchain
- Digital assets recognized by the entity are not owned by the entity, i.e., they are owned by another party

- The entity's valuation policy is not consistent with the applicable financial reporting framework
- The entity does not appropriately apply its valuation policy
- Not all indicators of impairment are appropriately considered and reviewed by Management
- Inadequate or incomplete disclosures

- The entity did not record all its digital asset transactions or they were recorded in the wrong period
- The data on the blockchain is not accurate
- Block explorers do not accurately extract or display information from the blockchain

- The entity does not appropriately determine the carrying amount of digital assets
- Profit or loss on digital asset transactions is calculated incorrectly

4.1 Significant assertions
Existence

Risks	Procedures to perform		
Challenge to counter	**Auditors should assess the existence assertion through**	**While reviewing the digital asset documents consider**	**Given the digital nature, audit firms may need to**
• Crypto-wallets and digital asset accounts for a client can be at various exchanges • Loss of digital asset keys can render the asset worthless	• Confirmation by a third party • Inspection of the asset • Inquiry of management • Subsequent conversion of asset to currency	• Obtaining a list of wallet accounts, digital assets with their balances • Source documents indicating the opening of a wallet	• Ensure security of the private key used to access the digital asset • Test the IT application controls that prevent the risk of misidentification of a party to a transaction that will reduce the risk of incorrect posting to the blockchain

4.2 Significant assertions
Rights and obligations

Risks	Procedures to perform		
Challenge to counter	**Auditors should assess the rights and obligations assertion through**	**While reviewing the digital asset documents consider**	**Given the digital nature, audit firms may need to**

• Digital asset holdings are relatively anonymous
• New addresses are easily created and do not require personal information
• Lack of third-party assurance reporting will increase the difficulty in assessing the risks involved.
	• inspection of other documents
	  • Third party agreements
	  • Confirmations
	  • BoD minutes
		• legal owner of the digital asset held by client
		• whether the asset of the client is held by an exchange segregated from the exchange's other holdings
		• What happens to the asset if the exchange goes out of business or loses the assets
		• What are the internal controls at the exchange to provide security to the asset
			• develop proprietary software to identify like blockchain explorer and
			• verify digital assets belonging to their clients or hire specialists with such expertise

4.3 Significant assertions
Completeness

Risks	Procedures to perform		
Challenge to counter	**Auditors should assess the Completeness assertion through**	**While testing completeness assertion consider**	**Given the digital nature, audit firms may need to**

• Delays in processing transactions caused due to -
  • different exchange technology,
  • market volatility,
  • nexus regulation,
  • blockchain consensus mechanisms, and
  • internal controls at the exchange
• Undisclosed wallets and transactions
	• Verify whether all digital asset transactions are recorded on the blockchain
	• Understand and test operating effectiveness of client internal controls around completeness
	• Verify that inactive wallet accounts are deactivated or deleted
		• Whether reconciliations between the blockchain and the accounting records are necessary	• Obtain evidence of completeness of pre-numbered source of documents and trace them to ledgers

4.4 Significant assertions
Valuation

Risks	Procedures to perform		
Valuation of digital asset is challenging due to	**Auditors should assess the valuation assertion through**	**While testing valuation assertion consider**	**Given the digital nature, audit firms may need to**
• a lack of comparable trades, • differences in pricing between buy and sell orders, • disparate methods in reporting exchange currency pricing, and • the difference in pricing of a particular asset depending on the exchange used for the trade	• Identify the accounting policies used to value digital assets and disclose the market used in valuation, • whether there is evidence of manipulation in the market, • whether the market provides enough volume to assess the reliability and relevance of the pricing information.	• Accounting records need to be maintained to track the cryptocurrency cost basis for impairment testing	• Consider the volatility of the asset market and the consistency of measurement

5. Other audit considerations

5. Other audit considerations

Related Party Procedures	Presentation and Disclosure	Subsequent Event Procedures
Laws and Regulations, litigation, claims and assessments	Income tax considerations	Management Representations

5.1 Other audit considerations
Related party procedures

Risks related to related party transactions

- Since there is generally no legal document to provide evidence of the owner of digital assets, an entity may misrepresent ownership rights (e.g., by claiming it owns digital assets that belong to a related party), or multiple parties in a related party group might claim ownership of the same digital assets (e.g., two entities may share the same management team that can access the private key).
- The entity does not identify and/or disclose all digital asset transactions with related parties.
- Digital assets recognized by the entity are not owned by the entity; they are owned by another party.
- The pseudo–anonymous nature of blockchain transactions can make it challenging to identify all relationships and transactions with related parties.
- To mitigate the risks an auditor should understand the entity's process for identifying, accounting for, and disclosing related parties and relationships, as well as related party transactions.

5.2 Other audit considerations
Presentation and disclosure

- Whether the entity's presentation is appropriate and consistent with the applicable financial reporting framework.
- Whether an entity that uses a third party to hold digital assets should
  - recognize digital assets on the balance sheet or
  - a right to receive digital assets on its balance sheet (i.e., a receivable from the third party).
- In case of a custodian or similar entity that holds digital assets on behalf of customers evaluate whether the assets should be recognized on the third party's balance sheet.
- Evaluate the appropriateness of an entity's presentation of digital asset transactions in the income statement and statement of cash flows, including whether gross or net presentation is appropriate.
- While there are no specific disclosure requirements for digital assets,
  - evaluate whether the entity's disclosures relating to digital assets are appropriate in the context of the applicable financial reporting framework and
  - provide sufficient information that would be useful to users of the financial statements in understanding the effect of digital assets on the entity's financial condition and performance.
- Include in the notes the nature of the asset, accounting policies, fair value, contingencies, risks associated and valuation
- Additionally, the business purpose of the transaction, measurement basis, and volatility may also need to be considered for disclosure.

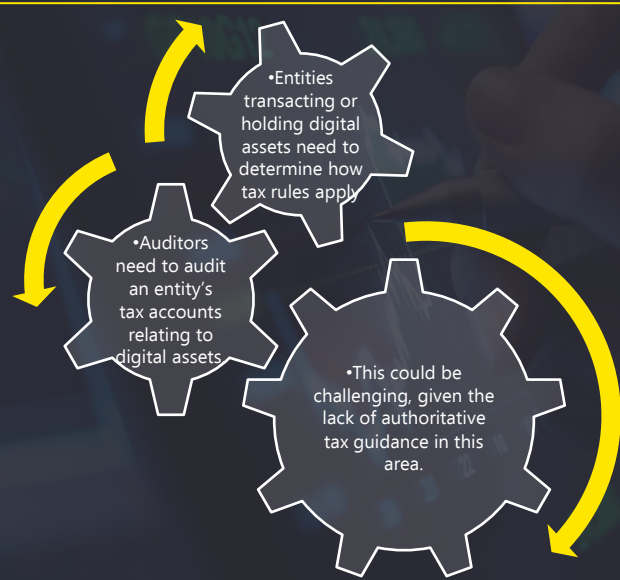
5.3 Other audit considerations
Subsequent event procedures

- •Scan transactions recorded on the blockchain for significant or unusual items (e.g., a transfer of substantially all digital assets) through the date of our auditor's report, or as close to that date as practicable.
- Losses of digital assets after the balance sheet date but before the issuance of the financial statements could represent a material item to be disclosed.
- •Consider the risk that the entity no longer has the right to access and control the assets up to the date of the auditor's report.
- Based on our risk assessment, evaluation of controls and other evidence obtained, we may determine that it is necessary to test whether management continues to have the right to access and control the digital asset associated with the public address by verifying the transfer of digital assets between entity–controlled public addresses.

5.4 Other audit considerations
Laws and Regulations, litigation, claims and assessments

- Understand the regulatory framework in which the entity operates and how the entity complies with it.
- This understanding will facilitate identification of risks of material misstatement to the financial statements from noncompliance with laws and regulations.
- Evaluate whether the entity's digital asset activities may be subject to the jurisdiction of a regulator that could impose a fine or other penalty, even if the entity or the related digital assets are not registered with the regulator.

5.5 Other audit considerations
Income Tax considerations



5.6 Other audit considerations
Management Representations

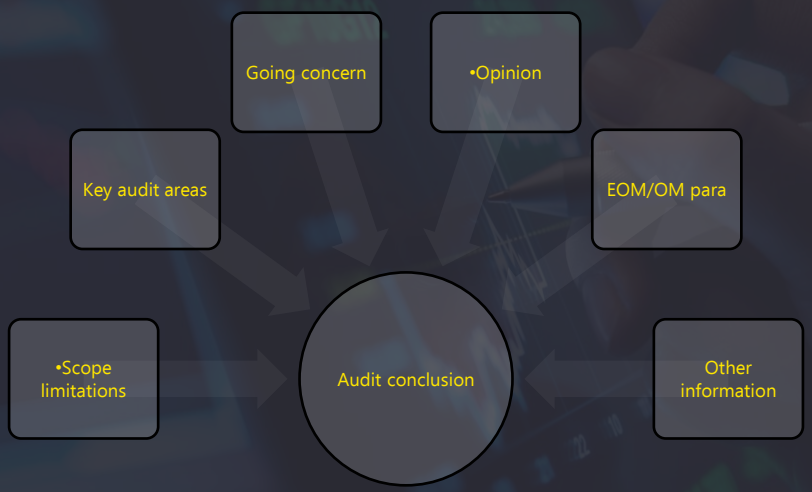
Written representations are necessary information that the auditor requires in connection with the audit of the entity's financial statements. Although written representations provide necessary audit evidence, they do not provide sufficient appropriate audit evidence on their own about any of the matters with which they deal. (SA – 580)

- The auditor shall request management to provide a written representation that:
- It has provided the auditor with all relevant information and access as agreed in the terms of the audit engagement
- All transactions have been recorded and are reflected in the financial statements (SA – 580)

- Given the risks involved with digital assets, auditors may determine that it is necessary to obtain additional management representations to support one or more specific assertions, depending on the facts and circumstances.

6. Audit conclusion and reporting

6. Audit Conclusions and Reporting



Key takeaways

- While accepting an audit of financial statements involving digital assets, it is important to assess auditors' and management's skills and competencies related to digital assets
- the fundamental considerations to audit digital assets remain the same: auditors are responsible for gathering evidence relevant to management's assertions regarding the fair presentation of the financial statements.
- the way digital assets are audited is dramatically different, due to the complex nature of the environment.
- As auditors we must apply our expertise and work with all stakeholders to develop a comprehensive approach to accepting, designing and executing audits of digital assets.
- We play an essential role in maintaining confidence and trust in the capital markets. New digital assets and their pace of change mean we must actively engage in helping new develop methodologies and tools, as we continue to apply the best analytical thinking and enhance effective and systematic examination.
- With the right approach, technology and infrastructure, a thorough audit of digital assets is completely achievable.

Questions