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Crypto-Assets: Overview of Use Case Traction – Accounting, Assurance, Tax and Internal Control Implications

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Speakers



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Monica Singer, South Africa Lead, Consensys & Board Member, South African Institute of Chartered Accountants



David Deputy, President, Accounting Blockchain Coalition & Director of Strategic Development & Emerging Markets, Vertex, Inc.



Mark Li, Audit Partner at BPM LLP and Blockchain and Digital Assets Leader



Bennett Moore, Lead Digital Asset Technical Resource, RSM US



Rob Massey, Partner, Deloitte and Global Tax Leader, Blockchain and Cryptocurrency Accounting Blockchain Coalition



About The Accounting Blockchain Coalition

Forging the Future of the Accounting Industry

A unique member led non-profit industry association comprised of member firms :

- Accounting, tax and audit practitioners,
- Enterprise and startup technologies for tax and accounting, and
- Academics in the accounting field

Each of whom are leaders in the emergence of blockchain and distributed ledger solutions for business.

Blockchain is changing the way businesses manage invoicing, documentation, contracts, payments processing, and more. As more financial professionals are being asked to work with this new technology, it is critical for them to understand what blockchain is, what it can do, and how they can use it to help their clients run a better business and manage their assets.

What is the ABC?

The Accounting Blockchain Coalition (ABC) is a forum for ideas, innovations, education, and best practices about blockchains in the accounting profession. It's the place where solutions can be shared, opportunities realized, and new skills developed. ABC also serves as a platform for ABC members to contribute their knowledge and expertise while fostering best practices.

Through monthly knowledge-sharing meetings, working groups, and an online community for our members, we provide an infrastructure for our members to contribute their knowledge and expertise, connect and learn from others, and enhance their professional development.

ABC Working Groups collaborate on creating materials, guides, use cases, and analyses that advance the use of blockchain in the accounting profession in these areas: Regulatory Compliance, Auditing/Accounting, Taxation, and Internal Controls.

ABC is led by a Board of Directors comprised of industry leaders in accounting, law, tax, technology, higher education, and non-profit organizations.

Membership Criteria

ABC is open to any company or educational institution that needs a reference, develops products, provides services to customers, or provides expertise to the accounting industry. This could include: accounting, legal and tax firms, technology companies, and institutions of higher learning.

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Blockchain 101

Monica Singer

South Africa Lead, Consensys & Board Member, South African Institute of Chartered Accountants

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INSIDE: A 12-PAGE SPECIAL REPORT ON COLOMBIA

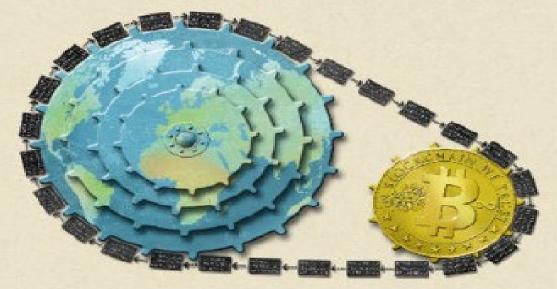


SCIEDER IN ST-WOVENER ON 1005

007 and the spectre of Britain's past Turkey votes to the sound of bombs Those ever-creative accountants America takes the fight to IS Coywolves: the new superpredator

The trust machine How the technology behind bitcoin could change the world

Economist.com



"... the most important invention since the Internet."

From Web 1.0 to Web 3.0

The Internet began as a decentralized architecture, but efficiencies and drive for wealth led to siloed, walled gardens. This was due to the lack of a mechanism for **shared ownership** of open platforms.

Web 1.0

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- Static rendered content
- Images, text, hyperlinks

Web 2.0



- Interactive, ecommerce, mobile, social
- Efficiencies and competitive commerce – Siloed, walled gardens

Web 3.0

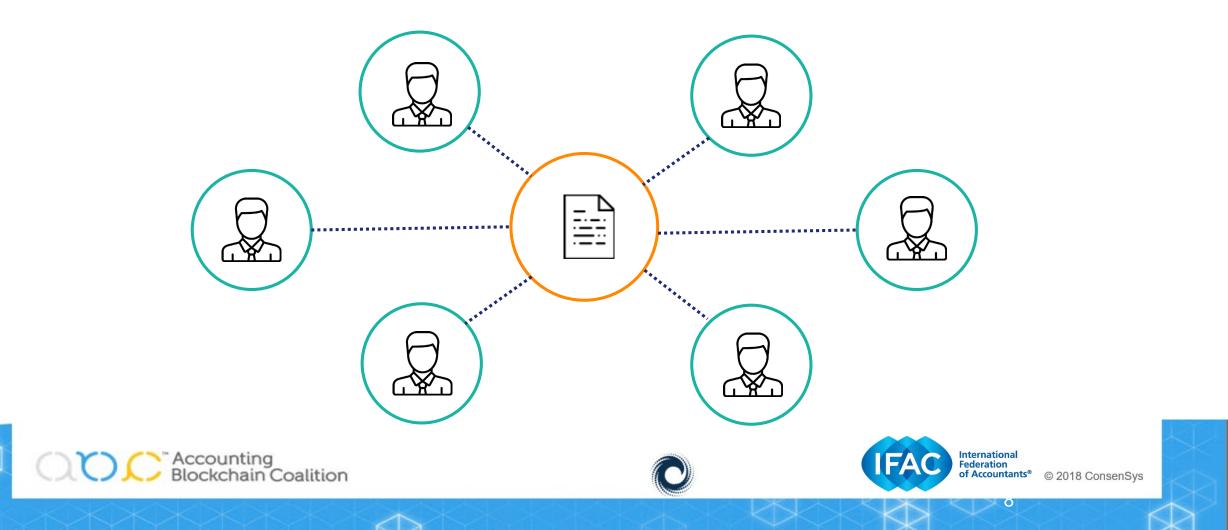


- **Ethereum**: trusted transactions, automated agreements, smart objects on a world computer
 - Decentralized storage, bandwidth and heavy compute

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Central Ledger Model in batches, relies on trusted third party & requires reconciliation

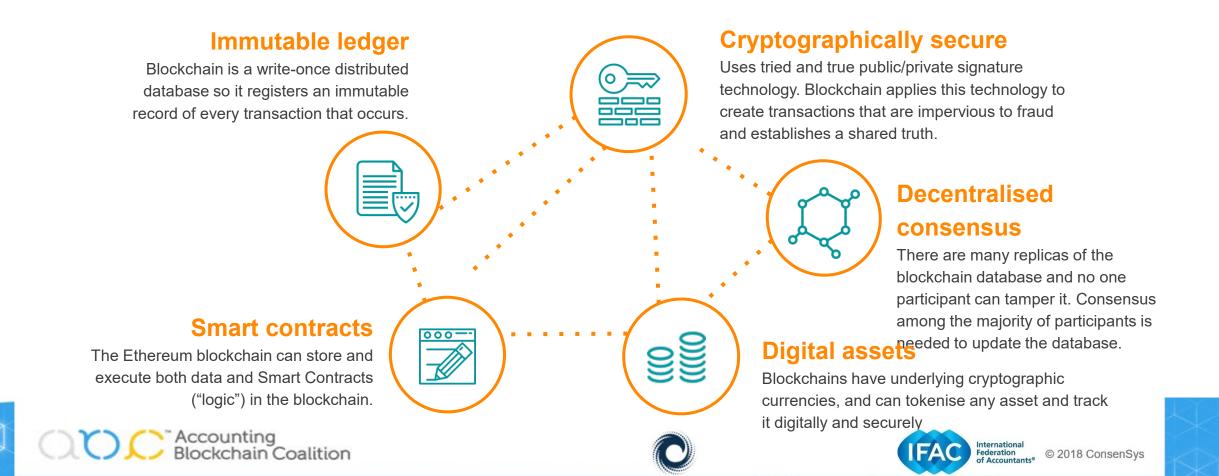


DISTRIBUTED LEDGER MODEL IN REAL TIME NO RECONCILIATION



KEY COMPONENTS OF A BLOCKCHAIN

Originally conceived as the underlying protocol of Bitcoin, blockchain technology has since evolved to support a number of applications with the introduction of "smart contracts"



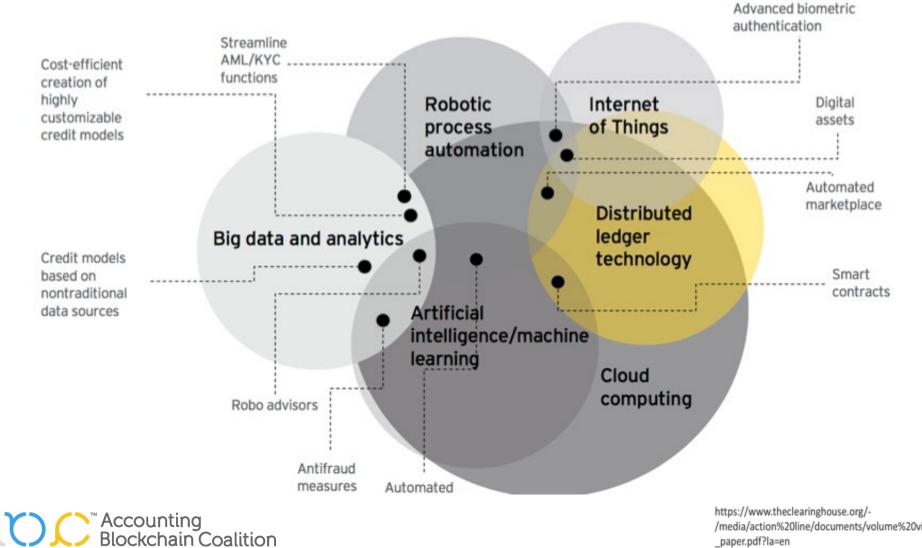
Blockchain and the impact on accounting

- There are no different versions of the ledger. There is a single version of truth with as many copies as are necessary with as many actors having visibility of the entries real time .
- Data will be shared peer to peer in the internet either in a public permissionless platform like Bitcoin and Etherum or in a private permission platform like Etherum and many others.
- There will not be a need for reconciliations.
- Auditors will be able to get the information real time from their clients.
- The ledger is immutable and has a complete audit trail of all transactions.





Convergence of technology in financial services



/media/action%20line/documents/volume%20vii/20161201 tch ey fintech

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Use Cases for Blockchain and Digital Assets Transactions

David Deputy, Director Strategic Development Innovation Labs Leader Vertex, Inc.

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Use Cases Gaining Traction

- Money
- Information
- Ownership





Money Case is Proven – Digital is Inevitable



The only question is what form will it take?





Option 1 – Corporate Money



Simple. Inclusive. Global.

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Jump to links 🗸

How Libra Works



Option 2 – Open Source Money

Bitcoin: A Peer-to-Peer Electronic Cash System

Satoshi Nakamoto satoshin@gmx.com www.bitcoin.org

Abstract. A purely peer-to-peer version of electronic cash would allow online payments to be sent directly from one party to another without going through a financial institution. Digital signatures provide part of the solution, but the main benefits are lost if a trusted third party is still required to prevent double-spending. We propose a solution to the double-spending problem using a peer-to-peer network. The network timestamps transactions by hashing them into an ongoing chain of hash-based proof-of-work, forming a record that cannot be changed without redoing the proof-of-work. The longest chain not only serves as proof of the sequence of events witnessed, but proof that it came from the largest pool of CPU power. As long as a majority of CPU power is controlled by nodes that are not cooperating to attack the network, they'll generate the longest chain and outpace attackers. The network itself requires minimal structure. Messages are broadcast on a best effort basis, and nodes can leave and rejoin the network at will, accepting the longest proof-of-work chain as proof of what happened while they were gone.





Option 3 – Central Bank Money



BANK FOR INTERNATIONAL SETTLEMENTS

The future of money and the payment system: what role for central banks?

Lecture by Agustín Carstens General Manager, Bank for International Settlements

Princeton University, Lecture

New Jersey, 5 December 2019

Introduction

The economics of money is back in the limelight. Even five years ago, I cannot imagine that a lecture on money and the payment system could have been a subject for an event like today's.

Theoretically speaking, money is a social convention. People accept money in the expectation that everyone else will do the same. According to this bare-bones definition, anything could serve as money provided that everyone, as it were, buys in.





Information – Proving Itself Now

While a broad range of information management processes may be enhanced by distributed ledger technologies, those in the **supply chain** stand out as having gained traction today. Traction is seen across multiple areas:







It all gets back to TRUST

These three flows are supplemented by a layer of trust. Trust, or lack of trust, underlies almost every action and data exchange in international trade, including trust in:

- The provenance and authenticity of goods;
- The <u>stated value of goods</u> for the purposes of insurance, duties, and payment; promises to pay;
- The <u>protection of goods</u> during shipping (i.e. integrity of packaging, vehicle and container conditions, etc.);
- The <u>integrity of information</u> that is used by regulatory authorities for the risk assessments which determine inspections and clearances;
- The traders and service providers involved in a trade transaction.



Source: UN/CEFACT – Blockchain Project – P1049,

White Paper on the technical applications of Blockchain to 1 United Nations Centre for Trade Facilitation and Electronic 2 Business (UN/CEFACT) deliverables

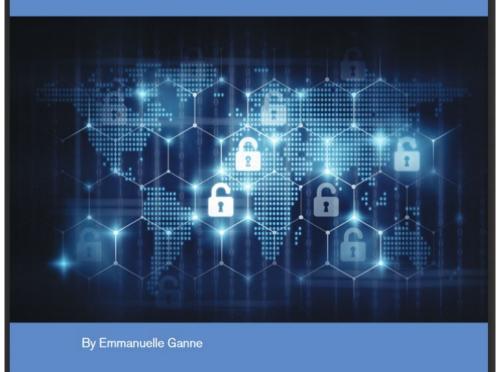


What's at Stake?

- Cost reduction estimates in the financial sector and the shipping industry range from 15 to 30 per cent of total costs.
- According to the World Economic Forum, the removal of barriers due to Blockchain could result in more than US\$ 1 trillion of new trade in the next decade.
- The WTO has estimated that the average trade cost reduction for all merchandise exports resulting from full implementation of the TFA could amount to 14.3 per cent, with an average decrease of 18 per cent for manufactured goods and 10.4 per cent for agricultural products



Can Blockchain revolutionize international trade?



Ownership – Still in Early Stages

Transfer of ownership represented via titles, registrations, deeds, certifications, etc., all represent claims on property or credentials that may benefit from distributed ledger-based systems ability to transaction without the need for intermediaries. Today, two use cases involving transfers stand out above the rest:

- Real Estate
- Securities







Liechtenstein Regulators Approve Ethereum-Based Real Estate Fund

Jan 23, 2020 at 09:50 UTC 🔹 Updated Jan 23, 2020 at 16:59 UTC

HSBC Puts \$10B of Private Placements on R3's Corda Blockchain

Mar 27, 2020 at 07:00 UTC • Updated Mar 27, 2020 at 15:48 UTC



China: World's Third-Largest Bank Issues Farmland Mortgage Loan on a Blockchain

🛔 Yashu Gola 🏾 🛗 31/07/2018 🔊 Blockchain News, News, Smart Contracts

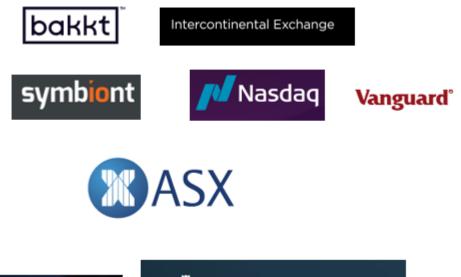


















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Audit and Accounting Considerations in Blockchain and Digital Assets Transactions

Mark Li, Audit Partner Blockchain and Digital Assets Practice Leader BPM LLP

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Accounting Standards for Cryptocurrency Lack of Authoritative Guidance in Accounting standards (U.S. GAAP) Auditing standards (U.S. GAAS) New class of asset?

□AICPA – Practice Aid, Dec. 2019

Inonauthoritative guidance

Classification of Crypto Assets (Bitcoin and Ether and its derivations)

- Specialized industry guidance (for example, it is not applying FASB Accounting Standards Codification ASC 946, Financial Services — Investment Companies)
- Recommends: Intangible at cost; subject to impairment evaluation
- $\hfill\square$ No auditing practice aid yet



Maccounting
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Classification of digital assets:

Currency/cash
Inventory
Commodity
Financial Instruments/Investment
Intangible
Other – New class of asset?

Revenue recognition of digital assets: Mining Minting/Creation Issuance of SAFTs Issuance of SAFEs Airdrop Hard fork Comparison



Valuation/Measurement:

Depends on classification of digital assets

Digital assets

Tokens

□SAFEs/SAFTs

□Fair value

- Principal or most advantageous market
- Websites: Coinmarketcap, Geminin, Coincap.io, Coindesk, Paxos, Kraken, Coinbase, Blockchain.info, bitstamp, bittrex and more

□Valuation inputs

Leveling (FV Hierarchy)

Level 1, 2, or 3
Valuation policy
Cost basis – next slide

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Cost Basis Tracking:

- LIFO
- FIFO
- Weighted Average
- Specific Identification
- "Lots"

Inventory cost tracking policy
 Affects realized gains or losses

Other Cost Basis Issue:

MiningHard forksAirdrop

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Hard Forks and Airdrop: Initial accounting Measurement/Valuation

SAFEs and SAFTs: Initial accounting Measurement/Valuation





Like-kind exchange:

- □No §1031 exchanges
- Realized gains and losses for crypto to crypto transactionsSale and purchase

In-kind contribution: Contribution of digital assets When to value Valuation policy





Existence/Ownership Testing:

ExistenceRights and Obligations

Methods of Testing:

Use of Blockchain technology or other networks to verify counts
 Confirmation with exchanges
 "Micro" transaction
 Observation





Internal Control/Safeguarding of Asset:

Understanding of safeguarding process

- □Self-custodied, store at exchanges, or deposit with third party wallets
- □Qualified custodians
- □SOC audits/reports

Qualified Custodians:

SEC Custody Rule
 Use "qualified custodians" to hold assets
 Annual surprise exams
 SOC audits





Audit Opinion Unqualified with emphasis of a matter paragraph Lack of Guidance in U.S. GAAP /IFRS (New class of asset) Qualified





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Internal Controls in Blockchain and Digital Assets Transactions

Bennett Moore, Lead Digital Asset Technical Resource RSM US

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PCAOB's Comments To Auditors

"In the case of blockchain, if an audit client uses it for business or operational activities, the auditor must understand the information systems, including the related business processes, relevant to financial reporting and how the use of blockchain affects the client's flow of transactions.

Blockchain does not magically make information contained within it inherently trustworthy. Events recorded in the chain are not necessarily accurate and complete. Recording a transaction on a blockchain does not alleviate the risk that the transaction is unauthorized, fraudulent, or illegal. Blockchain also does not address threats that parties to a transaction are related, or that side agreements exist that are not reflected in the chain. And nothing in the technology ensures proper classification of transactions in the financial statements."





IT Security and the Audit

- A blockchain could represent the entire, or partial, source of existence, completeness, accuracy, cut-off, etc. for a business utilizing the technology.
- All supporting documentation, approvals, and value transfers can be recorded on a blockchain.
- Therefore, IT security, risk of loss considerations, and controls are paramount to the auditability of a company using blockchain technology.





ABC Internal Control Working Group Framework

- Possible Threats and Vulnerabilities of Assets Related to Digital Assets and Blockchain Transactions and Possible Internal Control Activities and Actions to Address Them (<u>download link</u>)
- This document is not an authoritative risk framework, but high-level exploration of guidance that is based on existing frameworks (NIST) in the context of their use with digital assets and blockchain technology.
- The purpose of this document is to assist readers who are considering a risk assessment of certain common processes associated with use of blockchain technology.

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Four areas of evaluation

- Evaluates assets associated with each process in the following four areas
- Inherent risks
 - Risks that are present prior to the implementation of internal controls
- Threats and vulnerabilities
 - How an inherent risk may present itself
- Likelihood and impact
 - Generalized estimate of the likelihood and impact of an identified threat or vulnerability
- Internal control activities and procedures
 - Activities, procedures, and protections that can mitigate the outlined threats and vulnerabilities





Processes and associated assets

Execution and authorization of a transaction

- Multi-signature wallets
- Persons
- Online wallets
- Exchange account access

Digital asset due diligence

- Testnet
- Core wallets, non-provider based (web wallet, paper wallet, multi-sig wallet)
- Stablecoins
- Privacy coins
- Utility tokens
- Cryptocurrencies
- Security tokens
- Asset-backed tokens





Click <u>Here</u> to Download This Template

Ex) Authorization and execution of a transaction

Process: Execution and Authorization of a Transaction

Asset:	Inherent Risks	Threats and Vulnerabilities	Likelihood and Impact	Internal Control Activities and Procedures
Multi-signature wallets (combination of hardware wallet, online wallet, paper wallet, cold wallet etc.)	1) Collusion	1) Executive and IT personnel who each hold a private key/seed phrase to the multi-sig wallet work together to authorize and execute a transaction to their own personal wallet	1) low to moderate likelihood, high impact Considerations for likelihood include average rates of internal collusive fraud compared against depth of technical knowledge necessary to execute.	 Segregate access and execution duties with rotation of roles every 6 months Annual review of access controls and segregation of duties Disaggregation of private keys/seed phrases using an M of N type strategy (2 of 3; 3 of 5) with different individuals/entities holding each "piece" Use 2-Factor authentication on all exchange accounts and email accounts associated with exchange accounts Implementation of supervisory review that highlights amount value, destination, frequency, and approval prior to execution. Detailed monthly reports reviewed by management of executed transactions related to digital assets Utilize a custodial wallet service provider that validates the multi-sig wallet and ensures any modifications are controlled and fully audited. Also review SOC report of this custodial wallet provider.

Click <u>Here</u> to Download This Template

Ex) Authorization and execution of a transaction (cont)

Asset:	Inherent Risks	Threats and Vulnerabilities	Likelihood and Impact	Internal Control Activities and Procedures
Exchange account access (password)	4) 3rd party platform reliance	4) Exchange may be compromised 4) No exchange account security settings implemented	4) low likelihood, very high impact Considerations for likelihood are based on a company personnel performing adequate due diligence on 3 rd party platforms prior to working with them	 4) Don't allow the password for an exchange account to be exposed unencrypted 4) Do not store more than 5% of total digital asset holdings in online wallets, including exchange accounts. 4) Enforcement of access controls and segregation of duties 4) Develop and use exchange account security functionalities including withdrawal limitations, 2FA approval necessary for execution of a transaction, etc. 4) Review exchange policies about reimbursement in the event of a hack (i.e. FDIC insurance)





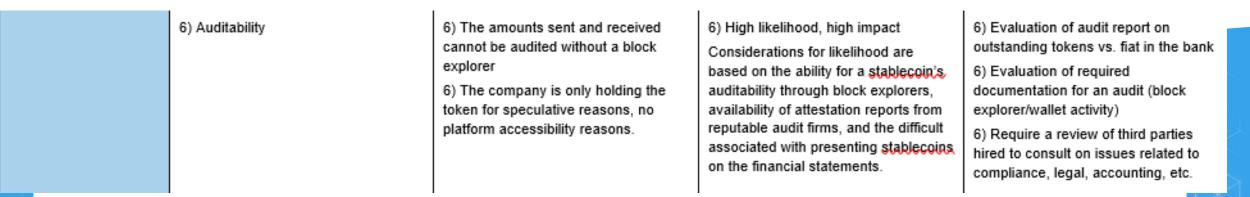
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Ex) Digital Asset Due Diligence

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Process: Digital Asset Due Diligence

Asset:	Inherent Risks	Threats and Vulnerabilities	Likelihood & Impact	Internal Control Activities and Procedures
Stable coins	1) Compliance	 Stablecoin does not meet all compliance requirements associated with its use, AML, KYC, disaster recovery in event of full liquidation, there is a lack of audited reserves Vendors cannot accept the stablecoin as payment 	1) High likelihood, very high impact Considerations for likelihood include the fact that compliance for stablecoins is relatively ambiguous at this time due to the unique nature of stablecoins	 Evaluation of compliance with regulations and laws Require a review of third parties hired to consult on issues related to compliance, legal, accounting, etc.



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Tax Considerations in Blockchain and Digital Assets Transactions

Rob Massey Global Tax Leader – Blockchain and Digital Assets Partner, Deloitte Tax LLP

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Proliferation of digital assets



Enterprise controlled Virtual world and in-game currencies

STABLECOINS

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Preliminary based on information available

Derivative

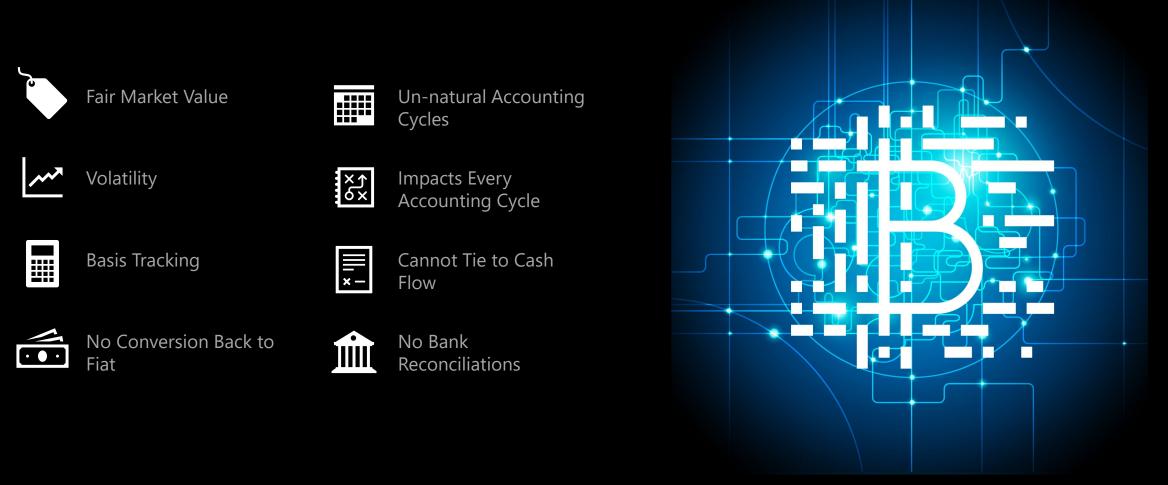
Oil rights; derivative of

traditional

security; derivative of digital asset

tokens

A world of barter transactions



International Tax Considerations

Country	Direct Tax	Indirect Tax	Character
Switzerland	 Individuals - Capital Gains and losses of cryptocurrency which are "private assets" may not be taxable. Those related to a business are taxable. Legal entities – Gains / losses are subject to taxation 	Sale of payment tokens – exempt from VAT Use of a payment token is not an additional taxable service – no VAT beyond the VAT due on the relevant transaction	CB CB
UK	Generally taxable as income or capital - application of standard rates	Sale of cryptocurrency – exempt from VAT Use of a cryptocurrency is not an additional taxable service – no VAT beyond the VAT due on the relevant transaction	
Canada	Generally taxable at standard rates. Gains which are capital in nature may be $\frac{1}{2}$ taxable and $\frac{1}{2}$ exempt.	No GST / HST if it is currency like Indirect tax may be applicable if tokens represent a right to a service or a good.	

Valuation

International Tax Considerations

Country	Direct Tax	Indirect Tax	Character
Singapore	 Taxable if ordinary in nature – subject to a "revenue account" Not taxable if capital in nature Deductions limited to production of Singapore-source income or foreign-source income that is received in/remitted to Singapore. 	As of 1 January 2020 A supply of crypto by a Singapore person to a Singapore person should be exempt Zero-rated if supplied to non- Singapore person. Utility / Security tokens more complicated	
Hong Kong	Capital gains – not taxable Offshore taxation regime (profits are derived offshore) - not subject to tax Treasury Center Regime – subject to half the normal tax rate (8.25% vs. 16.5%). Possible for dealers or traders who apply	No indirect tax No stamp duty	
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Valuation

Trends + Tax Considerations

IRS "guidance"

- Notice 2014-21, RR 2019-24, FAQs
- Property
- Mining
- Valuation
- Forks & Airdrops
- Barter Transactions
- Basis tracking

How the new "rules" compare to historical established practices

- Dominion and Control
- Valuation
- Basis tracking

Tokens used as compensation / barter

- Valuation
- Basis tracking

Informational reporting

• Exchange

Staking

- Revenue Recognition
- Character
- Sourcing

Lending

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Q&A



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Visit <u>http://accountingblockchain.net</u> to learn more about becoming a member of ABC today! Email <u>membership@accountingblockchain.net</u>

Join the Accounting Blockchain Coalition to:

- Position yourself and your firm as a thought leader in this rapidly emerging digital space
- Lead or support a local chapter with networking member meet-ups for industry professionals
- Contribute to our working groups (Internal Controls, Audit & Accounting, Taxation)
- Get exclusive webinar and conference speaking opportunities



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INFLUENCE

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THANK YOU

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