

DFIN-511 Introduction to Digital Currencies

Session 10
Regulatory and Tax Treatment

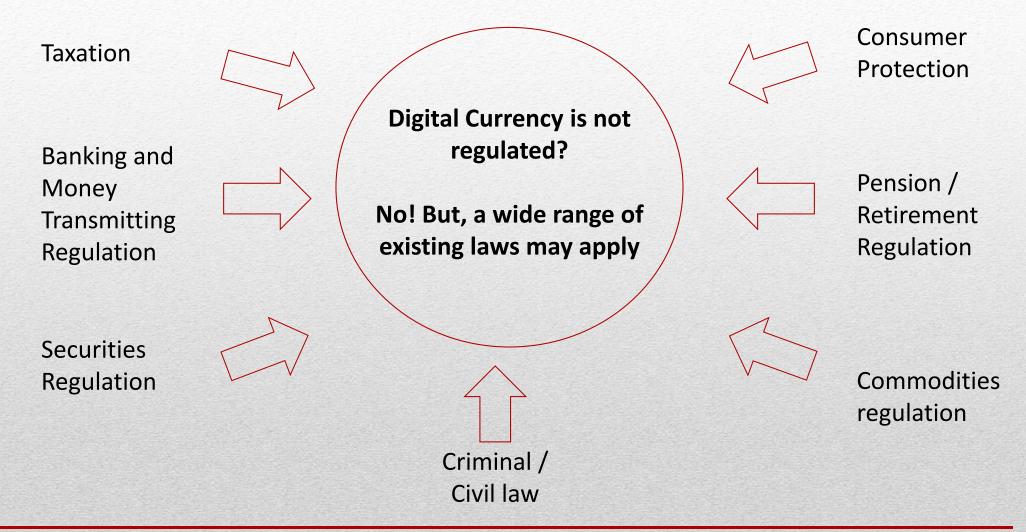
Objectives of Session 10

- Understand the likely areas of regulation that might impact Bitcoin and other decentralized currencies
- Develop an initial framework for evaluating different policy choices by nationstates in these areas
- Develop an appreciation for likely regulatory areas of concern when starting or working at a Bitcoin-based business

Agenda

- 1. Overview
- 2. Tax Regulations
- 3. Money Service Business / Money Transmitter Regulations
- 4. The NY state "Bitlicense"
- 5. Securities Regulation
- 6. ERISA/IRA Regulation
- Special Topics
- 8. Conclusions
- 9. Self-Assessment Exercises and Further Reading

A heavily regulated arena



Two Key Conundrums

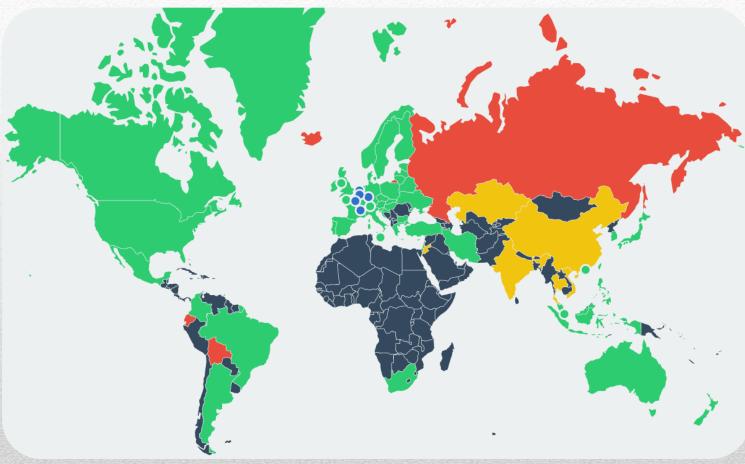
Not Legal Tender

- Many nation-states have regulations that explicitly define currency as legal tender of another nation-state, preventing them from recognizing other "currencies" formally as currency.
- This policy does serve a purpose. Bitcoin might behave as a currency, but should a country extend the same treatment to every alt-coin? If so, should this same treatment apply to other forms of digital currencies, such as in-game credits and frequent flier miles?
- The exceptions to this approach are countries like Germany that allow for the concept of a "unit of account" that can be treated as a form of "private money" used in "multilateral clearing circles"

Property that acts like a currency

- If it is not a currency for legal purposes, then digital currency almost certainly is property / asset instead. This seems very logical and consistent from an investor perspective.
- Most property, however, does not transact as often and in such small amounts as digital currency does, making this potentially burdensome from a consumer perspective.

Current regulatory environment



Source: MerkleTree.io (contains some of the latest updates on the specific situation in several US states and countries

Developed, open economies are generally permissive. The USA has issued the most guidance and is highly represented in this presentation

Capital-controlled economies are contentious or hostile (as they have to be)

Many African countries (with the exception of South Africa) and a few other countries have not yet addressed the topic and their status is unknown

Tax Regulations

Taxation: USA

- IRS took the position that "virtual currency", for tax purposes, is **property** its guidance stems from that decision.
- Virtual currency is subject to long-term and short-term capital gains / losses upon realization / sale.
- Income and expenses in digital currencies are taxed and reportable as per regular standards.
- Currency earned through mining is treated as ordinary income.
- This guidance is the most favorable outcome that **investors** in digital currency could have asked for, though it has presented some difficulties for **consumers** using digital currency.
- Sales tax was not addressed by the IRS ruling, as the IRS is the federal tax agency and sales tax is regulated by the individual states.

Taxation: USA

- The most controversial outcome of the IRS decision is the implication that every time you purchase something with, say, a bitcoin you have "sold" bitcoin and therefore have to calculate a capital gain or loss relative to your "basis" (purchase price) of the bitcoins you sold. There is no minimum exemption
- This treatment would be unworkable in a traditional currency as the record-keeping requirements would be overwhelming. Given that Bitcoin transacts solely electronically, software can calculate all these gains or losses automatically, though there is still a sense that this will be a hindrance to consumers
- Treating Bitcoin as currency would not, in and of itself, eliminate this issue corporations
 have to report foreign currency gains / losses as do individuals (though individuals have a
 \$200 personal exemption from foreign currency gains or losses)

Taxation: USA and what is different in EU

- This is a good example of where the dual nature of digital currency does not match up well
 with existing laws. It will be interesting to see if there is political will to make some
 exemptions for digital currency to encourage its adoption as was previously done with ecommerce (e-commerce was exempted from local and state sales tax given the perceived
 practical difficulties at the time of correctly calculating these taxes in the early days of the
 internet)
- On the personal side, the prospect of citizens transacting on an ongoing basis in a "foreign" currency (say Bitcoin) presents taxation challenges that are different than the normal de minimus use of foreign currency on vacation
- In EU on the other hand, in October 22, 2015, a <u>court ruling</u> for ECJ judged that bitcoin transactions "are exempt from VAT under the provision concerning transactions relating to currency, bank notes and coins used as legal tender." This change was met with enthusiasm from European exchanges that dwelled in uncertainty on their VAT obligations thus far, and openly enables increased adoption as a payment method.

Taxation: UK

- Treat as any other foreign currency
- Not VAT-able, a reversal of its prior decision that it was a VAT-able voucher
- In early November 2014, a <u>Call for Information</u> was issued to gauge the opinions of participants in the economy on regulation and taxation
- In a more <u>recent announcement</u>, the FCA announced the creation of a regulatory sandbox for Bitcoin and Ethereum companies in an attempt to bring them close to digital currency businesses.
- In March 2015, the UK Treasury <u>published</u> its plans to regulate Bitcoin, also noting the potential advantages of digital currencies as a payments technology. Among their plans are to:
 - Apply Anti-Money Laundering (AML) regulation to digital currency exchanges in the UK for the purpose of supporting innovation and for prevention of criminal use.
 - Work with the British Standards Institution (BSI) and the digital currency industry to develop standards for consumer protection.
 - Increase digital currency research funding by £10M and bring together various research councils, the Alan Turing Institute and Digital Catapult with industry, in order to research digital currency technology opportunities and challenges

Brazil

- Treat as a financial asset subject to 15% capital gains tax (reference)
- As such, bitcoins must be filed as an income tax return on how much they are worth and how much profit was made
- Receita Federal (the Federal Revenue service) decided that bitcoins must be declared as "other goods" when their value is higher than BRL 1,000
- When more than BRL 35,000 worth in bitcoins is earned as profit, it is subject to income tax

Australia

- In August 2014, ATO defined that Bitcoin and all digital currencies are subject to existing Goods and Services Tax (GST) for sales and Capital Gains Tax (CGT), similarly to equities and other assets (for sums over \$10,000);
- <u>In April 2015</u>, the Reserve Bank of Australia (RBA) indicated that it is not in favor of regulating Bitcoin or other digital currencies, since "any benefits of regulation would outweigh the costs". They also stated that, "...digital currencies don't raise concerns with regards to competition, efficiency or risk to the financial system".

France

- The French Ministry of Economy and Finance <u>announced</u> in July 2014 that measures and taxes were to be placed until the end of the year, although not recognizing digital currencies as official currencies.
- A threshold is to be placed at €5,000, so that people can "try, invest and develop business with Bitcoin", before it becomes subject to taxes.
- Currently in 2015, there are no regulations regarding Bitcoin in France.

Japan

- JADA (Japan Authority of Digital Asset) was formulated to create and establish standards, best practices and guidelines and offer advice and consultancy, for the safe and sound operation of its members.
- The Japanese government has stated that this technology must have the opportunity to flourish and regulate itself, thus no rules and regulations will be put in place.

Denmark

- Denmark's Financial Supervisory Authority (Finanstilsynet) <u>rejects</u> bitcoin as a currency and stated that it will not regulate bitcoins
- Personal gains and losses from trading digital currency are not taxable (or taxdeductible)
- Corporations whose primary business is digital currency trading are taxable

Finland

- The Finish Tax Authority has <u>issued instructions</u> for the taxation of Bitcoin and other digital currencies
- When transferred to another currency, the rules on taxation of capital gains apply
- When the currency is used as a form of payment for goods and services, it is treated as a trade, and the increase in value that the currency might have gained after it was obtained is taxable

Some countries have not issued any guidance on taxation as they are still negatively-oriented toward cryptocurrencies.

Russia

- Issued warnings in <u>January 2014</u> that the use of currencies besides the ruble is illegal, and has since proceeded to release <u>draft bills</u> with the penalties involved for the promotion and use of "money surrogates" like Bitcoin.
- The Russian Central Bank views the services of Russian legal entities aimed at assisting in the
 exchange of bitcoins for goods, services, or currencies as a "dubious activity" associated with
 money laundering and terrorism financing
- One update from Russian Central Bank's governor: "...this is something definitely the market will be welcoming so we will be watching with attention and, if necessary, regulate it."
- Despite these, Russia has blocked several Bitcoin related sites and was supposedly preparing to issue a <u>wider ban</u> up till August, but <u>other</u> reports have surfaced since then that point <u>otherwise</u>.

Bolivia

Moved towards actually <u>banning</u> Bitcoin in <u>May 2014</u>, citing "It is illegal to use any kind of currency that is not issued and controlled by a government or an authorized entity."

Money Service Business / Money Transmitter Regulations

Banking and Money Transmitting: USA

- FINCEN (Financial Crimes Enforcement Network) is the bureau of the US Department of
 Treasury tasked with fighting financial crime. It has made two public rulings regarding
 "virtual currency" clarifying which parties in the digital currency ecosystem are MSBs
 (Money Service Businesses) and are therefore subject to regulation:
- Consumers are <u>NOT</u> MSBs: "A user who obtains convertible virtual currency and uses it to purchase real or virtual goods or services is not an MSB under FinCEN's regulations"
- Miners are <u>NOT</u> MSBs so long as they are mining for their own account. If they are mining in order to transmit money for others to third parties, they would be MSBs
- Exchanges <u>ARE</u> MSBs if they allow transmission of value to third parties. In the Bitcoin ecosystem, that would mean that firms like Coinbase would be MSBs as would full exchanges.

What does it mean to be an MSB?: USA

Who are MSBs? (1) Currency dealers/exchangers, (2) Check cashers, (3) Issuers of traveler's checks / money orders or stored value cards, (4) Sellers/redeemers of traveler's checks, money orders or stored value cards, (5) Money transmitters, and (6) The US Postal Service.

Once a firm is classified as an **MSB**, it triggers a wide range of regulatory requirements in the United States such as:

- Having to register with the Department of the Treasury
- Developing a customer identification (Know Your Customer) and AML (Anti-Money Laundering) program with policies, procedures, internal controls, compliance officers and independent review
- Reporting cash or suspicious transactions under the Bank Secrecy Act
- State-level registrations: Almost all states require registration or licensing for MSBs that operate in their state, and in some cases, that transact with citizens of their state, even if they don't have operations in-state. New York State, in particular, is in the process of developing special regulations for digital currency exchanges that might serve as a model for other states.

The accidental MSB2: USA

- Legal penalties for violating MSB regulations (even unknowingly) are very severe and can include heavy fines and jail time.
- Prior centralized digital currency firms such as e-Gold and Liberty Reserve were indicted and closed for failing to register as money transmitters (among other charges). Several early Bitcoin firms such as Mt.Gox (May 2013) and BitInstant (Jan 2014) also ran afoul of MSB regulations. It has been interesting to see that with decentralized currencies, the regulatory problems of individual businesses have gained all of the attention of regulators, without attracting any towards the currency itself
- MSB compliance is expensive and time-consuming. This means that startups using digital currencies in MSB contexts will need to be well-funded and have strong compliance expertise

The accidental MSBP: USA

- MSB regulations can ensure individuals who might have never considered themselves to be
 in the MSB business, including repeated sellers/buyers of bitcoins on an individual basis
 (through localbitcoins.com) or sites that trade bitcoins for other stored value products (such
 as pre-paid cards or stored value cards).
- A guidance released by FINCEN on October 27 2014 further complicates things regarding
 MSB registration and whether Bitcoin companies fit within. This guidance is mostly related
 with custodial bitcoin exchanges and payment processors, and the fact that they may be
 considered MSBs under US law.
- A more unusual approach has been taken by <u>ITBit</u> in New York State where it has registered
 as a (heavily regulated) trust company in order to offer exchange services. This is a unique
 approach to date, as they offer full fiat & bitcoin asset protection, and customer security and
 protection.

The NY state "Bitlicense"

The state of NY "Bitlicense"

- On July 23th, 2014, the Department of Financial Services of the New York state published an analytical report on the new codes, rules and regulations that users of Virtual Currencies, or organizations providing "Virtual Currency Business Activity" should comply with, finalizing it in June 3, 2015.
- In their announcement, the state of New York, defined as "virtual currency" the **digital means** that are used as a medium of exchange or store of value, or as a part of a payment system.
- These means of digital currency fall under 3 categories: "(i) have a centralized repository or administrator; (ii) are decentralized and have no centralized repository or administrator; or (iii) may be created or obtained by computing or manufacturing effort."
- The announcement clearly excludes any form of private money used, for instance within online games or in a customer loyalty program.

Source: http://www.dfs.ny.gov/legal/regulations/adoptions/dfsp200t.pdf

Bitlicense - definitions

- According to the same announcement, businesses that are involved with processes like the following, are
 considered to perform a "Virtual Currency Business Activity" and should receive a written license before
 they establish their operation.
- Parts of the proposal include collecting personal data of the consumers, including full names and addresses, and maintain these records for 10 years. Moreover this not only includes conventional providers of financial services, but also other companies like wallet provider Blockchain.info that have no access to their customer's funds.
- The processes requiring a license are, summarily, the following:
 - "- receiving Virtual Currency for transmission or transmitting the same;
 - securing, storing, holding, or maintaining custody or control of Virtual Currency on behalf of others;
 - buying and selling Virtual Currency as a customer business;
 - performing retail conversion services, including the conversion or exchange of Fiat Currency or other value into Virtual Currency, the conversion or exchange of Virtual Currency into Fiat Currency or other value, or the conversion or exchange of one form of Virtual Currency into another form of Virtual Currency; or
 - controlling, administering, or issuing a Virtual Currency."

Source: http://www.dfs.ny.gov/legal/regulations/adoptions/dfsp200t.pdf

How to obtain a Bitlicense

- To receive such a license, the interested organization has to submit a formal application accompanied
 with different complementary archives, such as description of the business about to be established, its
 organizational structure, financial statements and a background report from an independent agency.
- A certain fee should be paid for the superintendent's services; the superintendent is responsible to positively or negatively respond to each application within 90 days of its submission.
- The company/business should employ a compliance officer and set up specific guidelines and internal processes, in order to ensure it will comply with the New York state laws.
- A certain capital requirement should be met at any point in time, so as to ensure customer protection. The company should also keep a certain amount of bonds in US dollars for the same reason.
- A written permission should be received by the superintendent before any changes are performed in the organization, the business processed, the offering (product or service) to the end customer, or before a merger or acquisition takes place.

Source: http://www.dfs.ny.gov/legal/regulations/adoptions/dfsp200t.pdf

How to obtain a Bitlicense

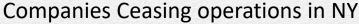
- Moreover, the superintendent must be able to check and examine the company's books and records, and also ask for reports and financial disclosures, reviewing the company's financial soundness, management policies and compliance.
- An Anti-Money-Laundering (AML) program must be established to provide the company with internal control, processes to test compliance at any point in time, as well as training mechanisms for every new employee entering the company.
- Last but not least, the company should also maintain, as part of the AML program, a customer identification
 program that will enable identification and verification of account holders, the same for large transactions as
 well as enhanced due diligence for foreign account holders.

The intial proposed Bitlicense, has so far, caused significant correspondence from the Bitcoin Foundation and nearly every major Bitcoin service provider operating in the USA including Coinbase, Bitpay, Circle, Xapo and several others including the EFF. The superintendent has hence reconsidered some of the statements included in the original draft, but without sweeping differences from the original proposal.

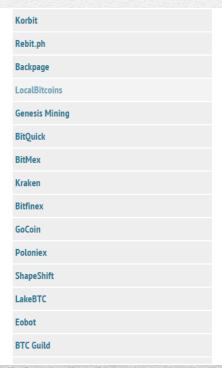
Bitlicense and industry response so far

• On September 2015, Circle became the first Bitcoin business to be <u>granted</u> a Bitlicense in New York. The NYFDS confirmed in August that it had received <u>22 applications</u> while others have completely ceased operations in NY.

Companies Applying



втсс	
Xapo Inc.	
Coinsource	
Coinbase	
Coinsetter	
Bittrex	
Circle	
Bitstamp	
MonetaGo	



Bitlicenses Granted:



Source: http://www.coindesk.com/bitlicense-round-up-whos-left-standing-in-new-york/

Securities Regulation

Securities Regulation: USA

- The Securities and Exchange Commission Chairman Mary Jo White has stated: "interests issued by entities owning virtual currencies or providing returns based on assets such as virtual currencies likely would be securities and therefore subject to our regulation"
- In SEC v Trendon T. Shavers and Bitcoin Savings and Trust, the SEC charged the defendant with running a Bitcoin-denominated securities scam and Ponzi scheme. The SEC claimed jurisdiction based on the Securities Act of 1933 and the Exchange Act of 1934, the cornerstone securities regulations in the United States
- US District Court for the Eastern District of Texas ruled in favor of the SEC, using a Supreme Court test of an investment contract that: "is any contract, transaction or scheme involving (1) an investment of money, (2) in a common enterprise, (3) with the expectation that profits will be derived from the efforts of the promoter or a third party"

Securities Regulation: USA

- The only controversial point was #1 and the court noted that Bitcoin can be used as money to purchase goods or services or can be exchanged for "conventional currencies" such as USD, Euro, Yen and Yuan while finding for the SEC.
- The SEC's statement regarding digital currency and the District Court rulings should be of great interest to "cryptocurrency stock markets" or "cryptocurrency IPOs" which are concepts that are regularly floated in the digital currency area. Certain exchanges do exist in this arena, though not in the United States
- This becomes particularly relevant with the advent of meta-coin protocols as Mastercoin,
 Counterparty and Nxt where securities can be issued by anyone in a decentralized manner.
- There is no reason to believe that securities denominated in cryptocurrencies would not be subject to the same federal and state securities legislation that all other securities are subject to, including (a) registration of securities, (b) limitations on marketing securities and (c) limitation on ownership of the securities to accredited investors

Securities Regulation: USA

- Furthermore, it is possible that dealers in these securities would be required to have a broader set of licensing consistent with broker-dealers of traditional securities
- A <u>ruling</u> by the SEC regarding the security offering of Satoshi Dice in 2012-2013, came with a penalty to the issuer and a clear warning by SEC Division of Enforcement Director Andrew Ceresney:
 - "All issuers selling securities to the public must comply with the registration provisions of the securities laws, including issuers who seek to raise funds using bitcoin"
- It will be interesting to see if other jurisdictions offer more flexible licensing in this regard in an attempt to attract these types of businesses, as crowdfunding for equity or profit shares will most likely remain an important avenue of funding for businesses
- Further afield are concepts like Decentralized Autonomous Corporations (DACs) that are independent of any human – these are beyond the scope of this course and will be addressed later in the program

Securities Regulation: Germany

- An earlier evaluation by German authorities classified Bitcoin as a "unit of account" in September 2013 for taxation and trading purposes.
- In February 2014, Germany clarified the stance taken earlier by the ministry of finance with a publication from BaFin.
- In said publication: "BaFin has qualified BTC with legally binding effect as financial instruments in the form of units of account pursuant to section 1 (11) sentence 1 of the German Banking Act (<u>Kreditwesengesetz</u> – KWG)."
- The paper also clarifies 4 activities that need to be licensed by BaFin, if performed with Bitcoin on a commercial level:
 - Principal Broking Services (Finanzkommissionsgeschäfte)
 - Multilateral Trading Systems (MTFs)
 - Investment and Contract Broking (Anlage- und Abschlussvermittlung)
 - Proprietary Trading (Eigenhandel)

CTFC and commodities regulation

- In September 2015, The US Commodity Futures Trading Commission (CFTC) has <u>issued its first action</u>
 against an unregistered bitcoin options trading platform, ordering the startup to cease operations and
 simultaneously settling the case.
- With the ruling, the CFTC has also confirmed that bitcoin and other digital currencies are commodities covered by the Commodity Exchange Act (CEA). In the past, CFTC chairman Timothy Massad had stated that bitcoin was likely to be considered a commodity.
- CFTC director of enforcement Aitan Goelman suggested in a statement that the agency will seek to hold digital currency companies to the same standards as more traditional businesses that fall under its purview.
- New York Law School professor Houman Shadab, suggested the ruling may have larger implications.
- "The action puts to rest any notion that virtual currencies qualify as securities. Otherwise, the Securities and Exchange Comission would be bringing this action, not the CFTC," Shadab said.

Tokens, Crowdsales and ICOs

A newer trend that has emerged in the recent months, but has been happening since nearly the beginning of this ecosystem, is the issuance of platform specific tokens/coins and their offering to prospective investors. This results in a form of crowdsale or crowdfund, where instead of equity in a company, owners get proportional rights to profit from the platform if it ever gains traction in a variety of ways (price rise due to demand, dividends, etc).

This can be used to pay developers, early adopters for fixing the bugs in a system, or simply just bootstrapping the network effect of a prospective decentralize platform. Their specific nature of being the underlying token exchanged within the protocol itself has given them the name "appcoins" since they are the only coins that can be transacted with, within those apps (ICOs=Initial coin offerings).

The most prominent examples of such sales so far has been the DAO and Ethereum, but a multitude of others have raised substantial funds. Of particular interest for the future, is how regulators will chose to address these (sometimes, thinly veiled) decentralized efforts and how they related to securities issuances laws. Some further readings on this topic:

http://coincenter.org/entry/what-are-appcoins

Series by Marco Santori on App coins (part 1/3): http://www.coindesk.com/appcoin-law-part-1-icos-the-right-way/https://medium.com/zeppelin-blog/on-tokens-and-crowdsales-309e49d9530d#.luszc1395

ERISA/IRA Regulation

ERISA: USA

- Employee Retirement Income Security Act (ERISA): Prudence
 - Does not exclude investments in any asset class
 - Fiduciary selecting digital currency as an investment must be "prudent."
- ERISA: Indicia of Ownership
 - ERISA plans cannot invest in assets outside of the jurisdiction of the District Courts of the United States (with some exceptions)
 - What are the indicia of ownership of a Bitcoin and where is it located?
- ERISA: Prohibited Transactions
 - ERISA plans cannot engage in transactions between the plan and a "party of interest"
 - General blind exchanges are probably acceptable under this standard

IRA: USA

Individual Retirement Accounts (IRAs): Collectibles

- IRAs preclude investments in collectibles, including some collectible coins
- Despite the similarity in name, it is not likely that cryptocurrencies would be considered collectibles or "coins" in this regard, particularly post the IRS ruling that they are property

IRAs: Commodities / Futures Contracts

- IRA investments in commodities and futures contracts are permissible
- This would seem to open the door for similar contracts based on digital currencies

IRAs: UBTI: Unrelated Business Taxable Income

- IRAs pay taxes on business activity other than passive investments
- Does not appear that UBTI would be triggered by investing directly in digital currency or through a fund. Investment shares in mining operations might cause a trigger though this is not yet determined.

Special Topics

Indicia of Ownership: USA

- Indicia of Ownership in other words how one can demonstrate that one owns an asset will be a very interesting topic for cryptocurrencies. Beyond its relevance to ERISA, it has relevance to broader institutional adoption of cryptocurrency. For example, how does a hedge fund prove to its auditor that it owns 20,000 bitcoins?
- Ownership of a bitcoin means "has access to the private key(s) that control certain addresses." One can prove access to the private key by signing a transaction relating to those addresses.
- What is more complex however is proving that nobody else has access to those same coins. Imagine that 1 party has shared the private key with two other parties. All three could prove to their auditors that they "own" those bitcoins by signing a transaction.
- Proposed solutions today involve (1) multi-signature transactions (aka requiring multiple parties to move the coins) along with one or more of the signatories being trusted custodians or trustees or (2) investing through a fund or corporate account (which itself has to solve the issue in #1)

Other Areas: USA

- Fraud, Misrepresentation, Fraudulent Inducement, etc.
 All general criminal and civil statues that related to fair dealing, theft, fraud,
 misrepresentation and so on certainly still apply to digital currency related transactions
- **CFTC: Commodity Futures Trading Commission**The CFTC has stated publicly that "Bitcoin is for sure something we need to explore." It is conceivable that it will seek authority over digital currency related futures or swaps, as also displayed during the Commissioners' <u>relevant statements</u> in the recent Bitcoin conference at Bloomberg, and the licensing of the <u>first Bitcoin Derivative in September</u>.
- CFPB: Consumer Financial Protection Bureau
 The CFPB has a wide-range of consumer protection responsibilities. In related areas, it ensures fees for money transmission are fairly disclosed and that errors can be remediated. It is conceivable it will eventually play a role in digital currency financial services

Special Topic: China

- The treatment of Bitcoin / cryptocurrencies in China has been of significant international interest given that the majority of Bitcoin trading volume in late 2013 was in China
- It is important to note that China still has currency/capital controls and, as such, it is hard to imagine that it could fully accept cryptocurrencies providing a mechanism to easily evade those controls.
- To date, the People's Bank of China has taken the following approach:
 - Progressively isolated cryptocurrencies from the financial system by tightening restrictions on commercial banks and their ability to work with Bitcoin exchanges and merchant processors
 - Stated that cryptocurrencies (e.g. Bitcoin) are not illegal as they are not considered as currencies. This might be both a matter of practicality (it would be very hard to ban Bitcoin in practice) and theory (some PBOC officials have stated their view that cryptocurrency was most like a collectible or "virtual commodity" and, as such, was not something that they could or should ban)
 - On June 26, a draft proposal to roughly recognize Bitcoins as "private property" was <u>issued</u> but without a final follow through so far.

Regulation and Tax treatment – A preview of DFIN-522 (MSc)

A preview of DFIN-522 (MSc)

There's much more to cover with regards to regulation and the tax treatment of digital currencies; for example:

- Regulation for digital currencies key theories for regulation and how digital currencies fit in them, application of existing regulations, new regulatory approaches (e.g. BitLicense), self vs. statutory regulation, inherent capabilities of blockchain-based currencies for self-regulation
- **Taxation** for digital currencies Anti-Money Laundering (AML) approaches, tax evasion, relation to individual tax system principles, and how direct/indirect taxation could take place
- Legislation for digital currencies regulation as a function of the legal system, fundamental legal
 concepts, tax law enforcement related to (or perhaps using) digital currencies
- Digital currency **uses and business models** use of Bitcoin exchanges, wallet providers, payment processors, friction points with existing regulations
- **Issues** for digital currencies such as in Accounting, Auditing, Custodianship, non-currency blockchain uses, and emerging issues in regulation

All of the above are covered by DFIN-522 Regulation and Digital Currencies from the MSc.

A preview of DFIN-522 (MSc) - Regulation

- Regulation as a function of the legal system and theories e.g. role, points of weakness
- Property and its relevance to digital currencies e.g. Is Bitcoin a "property", a "commodity", a "currency", etc.
- Regulation approaches: e.g. Anti-Money Laundering (AML) with examples and related issues,
- Consumer protection against fraud and theft
- Study of new regulatory approaches:
 - Bitlicense
 - California Bitcoin bill
- Inherent regulatory capabilities of blockchain-based currencies, self regulation and algorithmic regulation

A preview of DFIN-522 (MSc) - Taxation

- Tax evasion
- Tax system principles e.g. simplicity, transparency, efficiency, etc.
- How tax laws apply to digital currencies
- Direct/indirect taxation, how it works and how it is applicable to digital currencies
- Tax systems approaches and their differences in certain countries, such as, the US, and Australia

A preview of DFIN-522 (MSc) - Legislation

- Regulation as a function of the legal system
- Fundamental legal concepts e.g. with regards to "property" (Common law and European legal codes)
- Tax law enforcement
- Study of existing legislation in relation to digital currencies:
 - US-related such as US Constitution, Electronic Funds Act, Patriot Act, California bill AB-129, etc.
 - Key US regulators such as SEC, CFTC, CFPB, etc.
 - Australia-related such as Australia Securities and Investments Commission
 - Other existing legislation in Canada, the UK, Singapore

A preview of DFIN-522 (MSc) — Other Issues

- Issues relating to "property" (e.g. liens and charges, US Uniform Commercial Code (UCC), etc.)
- Issues in Accounting, Auditing and Custodianship of digital currencies
- Issues in Securities, Pensions, and Succession
- Non-currency blockchain uses and different business models
- Distributed ledgers
- Emerging issues in the regulation of digital currencies

Conclusions

Conclusions

- The Financial services industry is a very highly regulated industry. Given that there is no particular reason that changing the denomination of a financial services activity or instrument to digital currency would invalidate this regulation, it is likely that in most countries the full panoply of financial services regulation will be applicable to at least some parties in the cryptocurrency ecosystem
- Decentralized digital currencies share characteristics of currency, property, commodities and money transmission networks. This creates challenges in neatly matching them to pre-existing categories.
- The regulatory environment is still uncertain on a global basis as most countries have not yet given detailed guidance across the board about how digital currency should be treated. The US is furthest along of major economies, but it is anticipated that the EU will be presenting a common point of view soon. Countries with capital controls have been the most negative for obvious reasons.
- The greatest variety of approaches has been seen in taxation approaches to digital currency, ranging from standard "property" treatment to no taxation at all
- It will be interesting to see which countries provide accommodations (permanent or temporary) to digital currency to allow for early adoption or development

Further Reading

IRS Notice: 2014-21

http://www.irs.gov/pub/irs-drop/n-14-21.pdf

Investopedia Guide to Bitcoin Taxation

http://www.investopedia.com/university/definitive-bitcoin-tax-guide-dont-let-irs-snow-you/

HRMC Revenue and Customs Brief 9/14:

http://www.hmrc.gov.uk/briefs/vat/brief0914.htm

FIN-2013-G001:

http://fincen.gov/statutes_regs/guidance/html/FIN-2013-G001.html

FIN-2014-R001:

http://www.fincen.gov/news_room/rp/rulings/pdf/FIN-2014-R001.pdf

FIN-2014-R012:

http://www.fincen.gov/news_room/rp/rulings/pdf/FIN-2014-R012.pdf

SEC 2013-132:

https://www.sec.gov/News/PressRelease/Detail/PressRelease/1370539730583#.U1XsofldUt0

Further Reading

Regulatory map for Bitcoin

MerkleTree.io

UK Treasury digital currencies regulation

https://www.gov.uk/government/consultations/digital-currencies-call-for-information

Brazil digital currencies regulation https://www.bitcoinbrasil.com.br/como-declarar-seus-bitcoins-no-imposto-de-renda-de-2015

Australia digital currencies regulation http://www.rba.gov.au/speeches/2015/sp-so-2015-04-07.html

Denmark digital currencies regulation

http://www.finanstilsynet.dk/da/Nyhedscenter/Pressemeddelelser/2013/Advarsel-mod-virtuelle-valutaer-bitcom-mfl-2013.aspx

Further Reading

Finland digital currencies regulations http://www.vero.fi/sv-

FI/Detaljerade skatteanvisningar/Inkomstbeskattning av personkunder/Inkomstbeskattning a v virtuella valutor(28454)

China digital currencies regulations

http://www.pbc.gov.cn/publish/goutongjiaoliu/524/2013/20131205153156832222251/201312051531568322222%20251 .html

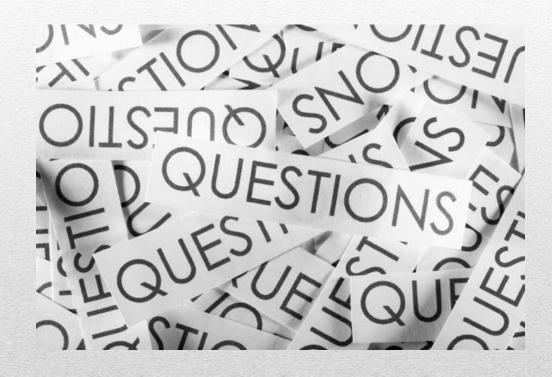
The latest Bitlicense (June 2015) explained:

http://www.morganlewis.com/pubs/nydfs-releases-final-rules-for-licensing-virtual-currency-businesses-in-new-york

Further Bitlicense comments:

- http://www.coindesk.com/new-york-releases-final-bitlicense/
- http://www.coindesk.com/bitlicense-divisive-milestone-bitcoin-regulation/

Questions?



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