A PRACTITIONERS GUIDE TO CRYPTO: GLOBAL RISK, REGULATION AND TAXATION

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Authors: Lois Tullo, *Executive In Residence, Global Risk Institute*
Dr. Preetika Joshi, *McGill University*
Dr. Linda Thorne, *Schulich School of Business, York University*
Nicolas Epelbaum, *Schulich School of Business, York University*

ABSTRACT

This article provides a guide to how practitioners can learn about the risk, regulation and taxation of cryptocurrency. It examines how leading countries are addressing the complex risks, regulations, and taxation of over 12,500 cryptocurrencies. The paper provides a background on the recent failures and volatility in the valuation of cryptocurrency, and the implications that these events have had on industry participants and regulators. Additionally, it introduces a global rating system that measures the stringency of countries' cryptocurrency systems, rating acceptance/adoption, regulation, and taxation on the Global Cryptocurrency Stringency Rating Map.

There is a wide dichotomy of approaches to cryptocurrency among countries. For instance, El Salvador has embraced cryptocurrency as legal tender, while other countries like the UK are proceeding with cryptocurrency regulation and adoption as financial assets. Many European countries, Canada and the United States are cautiously proceeding to adopt cryptocurrency as a security. Meanwhile, some countries like China and Russia have banned the use of cryptocurrency entirely (Russia has since softened its stance).

Canada is addressing the individual and systemic risk of cryptocurrency through relatively thorough regulation and reporting requirements. Canadian taxation of cryptocurrency is relatively stringent compared to other jurisdictions globally. As the global landscape around cryptocurrency risk, regulation, and taxation continues to evolve, we have witnessed changes in positions by countries like Russia, Singapore, and the UK.

Canada is cooperating with other countries to develop effective cryptocurrency regulation and taxation to protect Canadians from losses like those experienced in other jurisdictions.

INTRODUCTION

The risk of cryptocurrency can be assessed based upon systemic or individual factors. The systemic risk of cryptocurrency is determined based on its size and volatility which has significantly increased over the past two years. Systemic risk impacts individuals through losses on the value of their currency. There are over 20,000[i] cryptocurrencies in existence (only about 9,000 are actively traded), with the most common being Bitcoin (BTC), Ethereum (ETH), and designated stablecoins Tether (USDT) and Circle (USDC).

The magnitude of systemic risk is evident in the cryptocurrency market value, which has fluctuated between a high of $3 trillion USD in 2021, down to $1 trillion in 2022, and transaction values of $10.6 billion in 2022, projected to increase to $16.2 billion in 2023[ii] (Figure 1).

Systemic risk has increased due to the individual risks associated with the demise of major participants in the cryptocurrency industry, including FTX, Genesis, AAX, Celsius, and Three Arrows, leading to losses in an ever-increasing pool of capital and transactions. The losses could have adverse influence on payment systems due to: increased volatility, liquidity risk, cyber insecurity, fraud, money laundering and terrorist financing (ML/TF), and taxation avoidance or evasion. Individuals are most impacted by cryptocurrency risks through price decline, cyber attacks leading to coin loss, and portfolio losses resulting from the default of cryptocurrency exchanges, whether centralized (CeFi) or decentralized (DeFi).

These risks have been confirmed in the recent Bank of International Settlements (BIS) report: *Financial stability risks from cryptoassets in emerging market economies.*[iii] This report studies how vulnerabilities in the nature, structure, composition and function of cryptoasset markets translate into financial stability risks in traditional financial markets. This includes market, liquidity, credit and operational risks, bank disintermediation and capital flow risks. It then outlines the transmission channels through which these risks can affect financial stability. Risk catalysts in Emerging Market Economies (EMEs) can strengthen these transmission channels, increasing a country's vulnerability to financial stability risks.

Figure 1: Cryptocurrency Market Capitalization as at June 14, 2023[iv]

i https://www.statista.com/statistics/863917/number-crypto-coins-tokens/

ii https://www.insiderintelligence.com/content/crypto-transaction-value-crosses-10-billion-mark

iii https://www.bis.org/publ/bppdf/bispap138.htm

iv https://coinmarketcap.com/charts/

Three Mechanisms for Creating Cryptocurrency

- Cryptomining is the process of creating cryptocurrency using the Proof of Work (POW) algorithmic consensus mechanism. In this method, POW miners utilize sheer computing power to solve complex mathematical algorithms, validating transactions, and creating new blocks in the blockchain. These miners create the block that holds the transactions and generate the hash that verifies the transactions. Once a miner successfully solves the algorithm, they share their proof of work with the rest of the mining network, which then validates the work and competes to create the next block in the blockchain. Bitcoin (BTC) serves as the largest example of a POW blockchain. Although POW is considered to be the most decentralized blockchain, it is also known to be energy-intensive and less efficient, handling only around 7 transactions per second.
- Proof of Stake (POS) cryptocurrency stakes capital to create new cryptocurrency, to protect against fraud or negligence in validating cryptocurrency transactions. POS validators validate transactions through verifying activity, voting on outcomes, and maintaining records. Ethereum recently “merged” or moved to a POS blockchain from their previous POW blockchain. The merge was completed to increase efficiency, reduce energy consumption, and make staking participation more accessible to a greater number of participants. However, the majority of ETH’s staking nodes are hosted on the three major cloud providers, as well analysis from Santiment indicates that 46.15% of ETH’s POS nodes are controlled by only 2 addresses. Centralized hosting and consolidated validation put at risk ETH’s claim to being a distributed currency.
- Proof of Space and Time (PoST) works through an allocation of computer disc space to solve the algorithm to create new cryptocurrency. PoST farmers (miners on PoST blockchains) plot disc drives into numbered spaces and solve the algorithm with the proven number from the “space” at a proven “time” of the transaction. PoST is energy efficient and has improved transaction speed and security due to the use of disc drive space for validation. Chia (XCH) is the major currency using PoST, which was recently adopted to facilitate the World Bank’s carbon credit system and listed on Crypto.com to trade.

CREATION OF CRYPTOCURRENCY

An understanding of how cryptocurrency is created forms the foundation for comprehending its associated risks, regulatory and taxation requirements (see “Three Mechanisms for Creating Cryptocurrency” above). The process of creating cryptocurrency is often referred to as “mining,” which involves the generation of generic cryptoassets. Notably, there are three different types of cryptocurrency creators based on the type of cryptoassets they create: miners, validators, and farmers.

Creators are compensated in two ways: (1) by receiving a transaction fee, which is paid by the initiator of the transaction in the form of cryptocurrency, and (2) by receiving a block reward which is a predetermined number of newly created cryptocurrency units specified by the blockchain algorithm.

All large creators are categorized as engaging in commercial activities and are therefore subject to taxation on the income derived from cryptocurrency mining. An argument can be made that only POW miners perform tasks akin to generating income. In contrast, POS involves “staking” capital, similar to capital gains, while PoST entails the possession of disc space, akin to holding commodities. The different underlying transactional mechanisms in creating cryptocurrency are currently driving different regulatory and taxation arguments.

CENTRALIZED EXCHANGE FINANCE VS. DECENTRALIZED EXCHANGE FINANCE

Understanding the difference between Centralized Exchange Finance (CeFi) and Decentralized Exchange Finance (DeFi) is also fundamental to understanding cryptocurrency risk and regulation.

CeFi refers to exchanges, wallets, and other financial services that are centrally located and controlled. If a person or organization allows a CeFi to take custody of their cryptocurrency they are exposed to a number of risks that affect that CeFi. Recent examples include:

1. Poor governance decisions – FTX self lending to Alameda;
2. High-risk leveraged credit lending – Celsius lending to Three Arrows hedge fund;
3. Extreme market volatility – Market risk of devaluation of FTX's capital due to declining cryptocurrency values, and liquidity risk when they tried to raise capital to support their obligation either through selling of their FTT tokens or borrowing to enhance their reserves;
4. Cyber hacks of CeFi exchanges – Binance was hacked for USD $570 million;
5. Nonfinancial risk of geopolitical influences on exchanges – Co-founder of Bitfinex arrested for laundering money out of Russia to fund the Russia/Ukraine war; and
6. Environmental risk – Through the implications on climate change of energy usage of POW transactions, and the risk of extreme weather (flooding or fire) wiping out the CeFi or affecting its power supply.

DeFi refers to financial services built on decentralized protocols with no central point of control or "middleman" required to complete a transaction. (Note however that most DeFi platforms are built upon Ethereum, which recently "merged" from POW to POS, arguably more centralized than POW due to centralized hosting.) DeFi functionality is facilitated using "smart contracts" which are open-source applications that are programmed to automatically execute if certain conditions are met. Ethereum's platform for smart contracts offers much greater flexibility than POW platforms like Bitcoin.

Examples of DeFi transactions include:

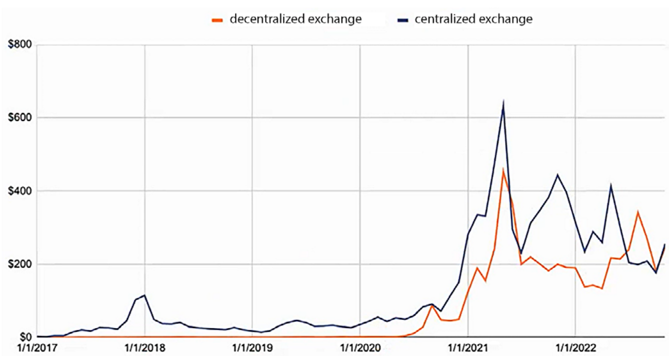
1. Minting, purchasing and investing stablecoins;
2. Loans or yield farming (lending or putting cryptocurrency on depot for a percentage return);
3. Liquidity funding (users provide liquidity in return for "free" tokens);
4. Insurance, crowdfunding, derivatives, betting or "prediction markets" (that allow participants to bet on or predict the outcome of an upcoming election).

DeFi is also exposed to a number of risks:

1. Operational risk – faulty smart contracts that have weak code – Tinyman (Algorand DEX) that was drained of $3 million in liquidity;
2. Operational risk – Rug pull – an exit scam typically carried out by the creator of the token to drain all the liquidity from the pool; and
3. Market risk - Flash loan attacks – used to manipulate the price of tokens traded on DeFi.

After the bankruptcy of FTX (A CeFi platform) there was a significant increase in the value of cryptocurrency that moved from CeFi to DeFi exchanges, and from CeFi to personal wallets. In June 2023 CeFi market capitalization was over $50 billion, while DeFi market capitalization was over $43 billion (Figure 2)[i] On a DeFi exchange all transactions are registered on the blockchain but not all CeFi transactions are recorded on the blockchain. The type of transactions that are on CeFi and DeFi exchanges are different. CeFi exchanges are predominantly involved in the exchange of cryptocurrency and margin investing. Whereas DeFi investing is overcollateralized, CeFi exchanges are highly leveraged. DeFi smart contracts are also facilitating investment in non-fungible tokens (NFTs), gaming platforms, insurance, and real estate in the metaverse. The challenge with CeFi exchanges has been the non-transparent intercompany transactions.

Figure 2: DeFi vs. CeFi Exchange Value Received

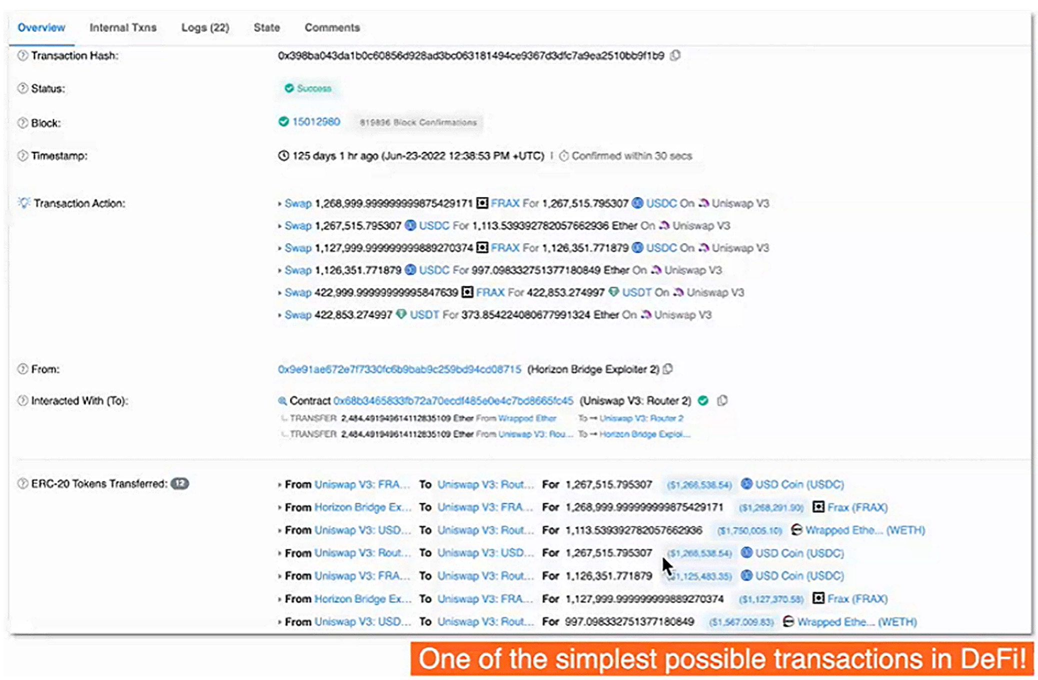


The challenge with DeFi from a regulatory standpoint is that the smart contracts are very complex sets of code and are difficult to understand (Figure 3). This makes it difficult to follow the flow of funds, and difficult to share the findings.[ii] Smart contracts are also written with open-source code (meaning the code behind them is public for anyone to view) which potentially opens the source code to errors that were undetected before publishing, and subsequently to security breaches or hacks.

CLASSIFICATION, REGULATION AND TAXATION BY JURISDICTION

What follows is a review of how cryptocurrency is classified, regulated and taxed in different jurisdictions throughout the world, with a focus on Canada, the U.S. and Europe.

Figure 3: Defi Smart Contract



i https://www.coingecko.com/en/categories

ii https://event.on24.com/wcc/r/3741624/ABE01903432D8A6D8AEE30205B17EBA1 (registration required to view recording)

Classification and Regulation

In order to regulate and tax cryptocurrency, we first need to agree upon the underlying definition of what cryptocurrency "is". Globally, jurisdictional regulators have defined cryptocurrency either broadly as a digital asset or specifically as a currency, security, or commodity. These decisions can be based on a number of factors, including: 1. The method of transaction (either wallet-to-wallet or through an exchange); 2. The perceived volatility of a cryptocurrency vs. a stablecoin; 3. The method of use or acquisition such as mining, Initial Coin Offering (ICO), HODLing (hold on for dear life), trading, purchasing, creating/minting NFTs, or won through gaming; and 4. Whether you are transacting with cryptocurrencies or NFTs as a business or a hobby.

The U.S. Securities and Exchange Commission (SEC) has debated the definition of cryptocurrency extensively. In February 2022, the Federal Reserve Board[i] announced regulations banning senior officials from owning or trading certain assets, one of which was "cryptocurrency." Unlike the other examples, the Federal Reserve separately defines cryptocurrency, and does so without categorizing it as a security or commodity. "Cryptocurrency" is defined as "a digital asset implemented using cryptographic techniques designed to work as a medium of exchange."[ii]

A security is broadly defined as a financial instrument that has value and can be traded. In everyday usage, it's a word that encompasses stocks, bonds, exchange-traded funds (ETFs) as well as other investments. Securities are closely regulated by the SEC, while commodities are regulated by the Commodity Futures Trading Commission (CFTC).

In the U.S. the three-question Howey test is applied to determine whether a financial instrument will be considered an "investment contract," and therefore, a security. It's named after the 1946 U.S. Supreme Court case–SEC v. W.J. Howey Co. The questions are:

1. Is there an investment of money with the expectation of future profits?
2. Is there investment of money in a common enterprise?
3. Do any profits come from the efforts of a promoter or third party?

If the answer to these questions is "yes," then the asset is considered a security.

In support of cryptocurrencies as securities, on June 5 and 6, 2023 the SEC launched a lawsuit against Binance[iii] and Coinbase,[iv] claiming that they had been selling securities without having registered as a broker with the SEC. In a previous case, a federal judge ruled that the Ripple Labs Inc. token is a security when sold to institutional investors but not the general public, a long-awaited decision that was widely hailed as a victory for the crypto industry over the SEC.[v]

Commodities, on the other hand, are raw materials used as inputs in the production of other goods or services. Commodities can be bought and sold via the cash market. Investors can also speculate on the prices of commodities via futures contracts, or derivatives tied to the price of a commodity in the future.

i https://www.federalreserve.gov/newsevents/pressreleases/monetary20220218a.htm

ii https://www.federalreserve.gov/monetarypolicy/files/FOMC_InvestmentPolicy.pdf

iii https://www.sec.gov/files/litigation/complaints/2023/comp-pr2023-101.pdf

iv https://wp.decrypt.co/wp-content/uploads/2023/06/coinbase-sec-lawsuit-june-6-2023.pdf

v https://assets.bwbx.io/documents/users/iqjWHBFdfxIU/rVqyLFyEZnz8/v0

Is cryptocurrency in the U.S. deemed a commodity? Yes, virtual currencies, such as Bitcoin, have been determined to be commodities under the Commodity Exchange Act (CEA).[i]

In Canada, The Ontario Securities Commission (OSC) has classified cryptocurrency as a security. In March of 2021 other Canadian jurisdictions followed suit, with the Canadian Securities Administrators (CSA) and the Investment Industry Regulatory Organization of Canada (IIROC) outlining a regulatory framework for compliance for cryptoasset trading platforms (CTPs) and their staff.[ii] CTPs must be registered with provincial or territorial securities regulators and implement conditions to help protect investors.

Europe also classifies tokenized securities or security tokens as financial instruments under MiFID II. The European Council approved the Markets in Crypto-Assets (MiCA) bill on October 5, 2022, the European parliament has adopted the first draft reading,[iii] and MiCA is awaiting their approval. MiCA focuses on regulation of virtual

Is Cryptocurrency “Currency”?

Any effective form of money must act as a medium of exchange, store of value, and unit of account. Both fiat money and cryptocurrency deliver this utility but are different in a number of key ways. Fiat money is legal tender whose value is tied to a government-issued currency, like the U.S. dollar, while cryptocurrency is a digital asset that derives its value from its native blockchain. The issuance and governance of fiat currency are dictated by central banks, while blockchain protocols, code, and communities govern cryptocurrency. The distribution of fiat requires intermediaries, while cryptocurrency relies on distributed and decentralized networks to enable “trustless” transactions.

A cryptocurrency is a digital currency, which is an alternative form of payment created using encryption algorithms. The use of encryption technologies means that cryptocurrencies function both as a currency and as a virtual accounting system. El Salvador and the Central African Republic have adopted BTC as legal tender and deem cryptocurrency as a “currency”.

For accounting purposes cryptocurrencies are a form of digital money that does not have physical substance. They are classified as intangible assets. International Accounting Standards (IAS) 38 allows intangible assets to be measured at cost or revaluation. Using the cost model, intangible assets are measured at cost on initial recognition and are subsequently measured at cost less accumulated amortization and impairment losses. Using the revaluation model, intangible assets can be carried at a revalued amount if there is an active market for them; however, this may not be the case for all cryptocurrencies. The same measurement model should be used for all assets in a particular asset class. If there are assets for which there is not an active market in a class of assets measured using the revaluation model, then these assets should be measured using the cost model.

i https://www.cftc.gov/sites/default/files/2019-12/oceo_bitcoinbasics0218.pdf

ii https://www.iiroc.ca/news-and-publications/notices-and-guidance/joint-csaiiroc-staff-notice-21-329-guidance-crypto-asset-trading-platforms-compliance-regulatory

iii Council of the European Union, Proposal for a Regulation of the European Parliament and of the Council on Markets in Crypto-Assets, and amending Directive (EU) 2019/1937 (MiCA), 5 October 2022, https://data.consilium.europa.eu/doc/document/ST-13198-2022-INIT/en/pdf assets that fall outside of the MiFID II definition of securities, predominantly stablecoins and utility tokens, while excluding NFTs and DeFi transactions (which don't currently fall under MiFID II either). By December 2024 (20 days post acceptance, plus 18 months) all components of the MiCA regulation should be actively governing crypto-business operations within the EU.[i]

A Global View

Regulators are working together to address the complex regulation of cryptocurrency as a subset of Virtual Assets (VA). The Financial Action Task Force (FATF) has issued *Updated Guidance for a Risk-Based Approach to Virtual Assets and Virtual Asset Service Providers*[ii] (VASP). FATF addresses the reporting requirements of VASPs transacting in VAs, to increase transparency of beneficial ownership and to protect against money laundering and terrorist financing (ML/TF). Specifically, FATF provides guidance on licensing or registration; preventive measures, such as customer due diligence, recordkeeping, and suspicious transaction reporting, among others; sanctions and other enforcement measures; and international co-operation. These guidelines are also instrumental in supporting the information that government tax agencies require.

The FATF guidance urges VASPs to collect and hold the following information for all VA transactions:[iii]

a. The name of the originator;

b. The originator account number where such an account is used to process the transaction;

c. The originator's address, or national identity number, or customer identification number, or date and place of birth;

d. The name of the beneficiary; and

e. The beneficiary account number where such an account is used to process the transaction.

Canada's regulatory acceptance of cryptocurrency is quite strict, with the Financial Transactions and Reports Analysis Centre of Canada (FINTRAC) requiring all crypto business participants to have a Money Service Business (MSB) licence. The MSB reporting decreases the potential proceeds of crime from money laundering/terrorist financing (PCMLTFA), reducing potential tax evasion and supporting the Organisation for Economic Co-operation and Development's (OECD) global Crypto-Asset Reporting Framework (CARF), which provides for the automatic exchange of tax information on transactions in Crypto-Assets in a standardized manner. The OSC requires reporting on the issuance, trading or holding of cryptocurrency as it is deemed a security. IIROC has recently extended membership to CoinSquare as the first regulated Crypto Trading Platform (CTP) in Canada.

Crypto exchanges in Ontario have imposed an annual buying cap of $30,000 for retail investors purchasing alternative coins (not including BTC, ETH, BTCcash, and Litecoin). This is in line with the OSC's investor protection guidelines and part of the process of eventually receiving IIROC membership and becoming a full investment dealers.[iv]

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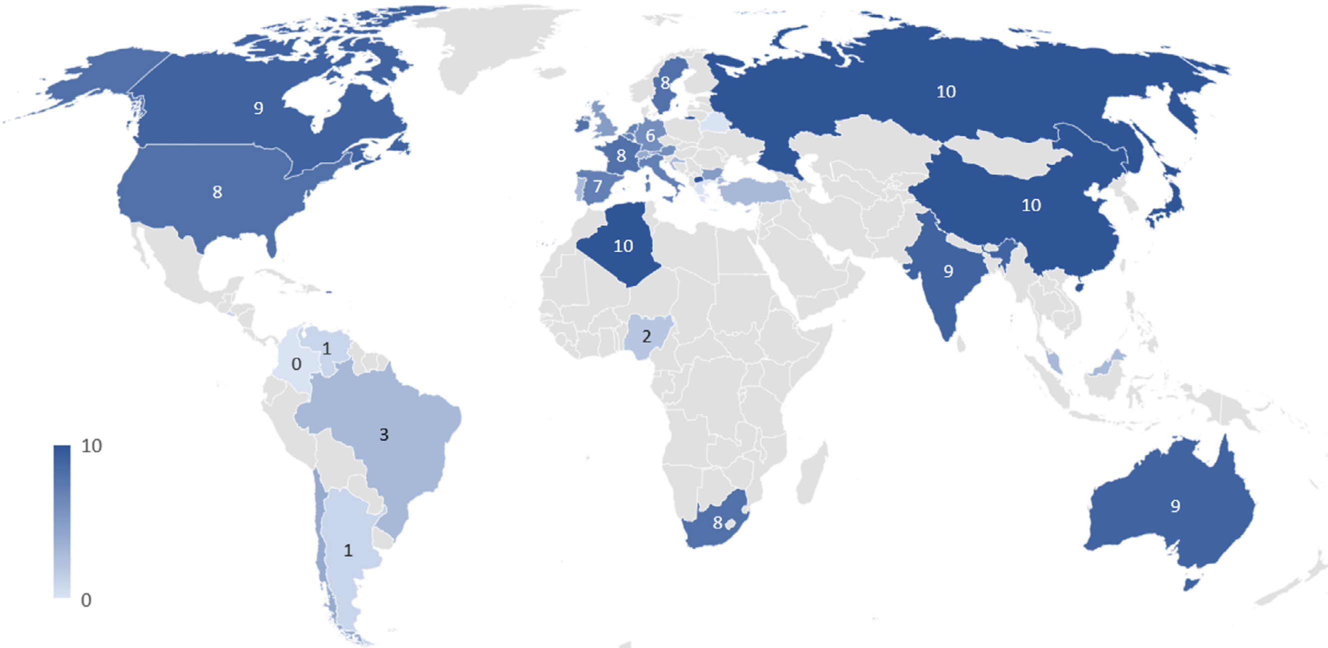
i https://www.consilium.europa.eu/en/press/press-releases/2022/06/30/digital-finance-agreement-reached-on-european-crypto-assets-regulation-mica/

ii https://www.fatf-gafi.org/media/fatf/documents/recommendations/Updated-Guidance-VA-VASP.pdf

iii https://www.fatf-gafi.org/media/fatf/documents/recommendations/Updated-Guidance-VA-VASP.pdf, pg 57

iv Tax Implications: Ontario Crypto Trading Exchanges Introduce Net Annual Purchase Limit for Retail Investors, https://cryptotaxlawyer.com/tax-implications-ontario-crypto-trading-exchanges-introduce-net-annual-purchase-limit-for-retail-investors/?utm_source=Mondaq&utm_medium=syndication&utm_campaign=LinkedIn-integration

Figure 4: Global Cryptocurrency Stringency Rating Map



Countries shaded in grey have not been rated

Global Cryptocurrency Stringency Rating

The Global Cryptocurrency Stringency Rating Map (Figure 4, see Appendix 1 for source data) compares Canada with some of the countries from North and South America, Europe, Asia, Australia, the Middle East and Africa. The rating is based on an equal weighting of 1. The country's acceptance of cryptocurrency based upon adoption percentage; 2. The stringency of cryptocurrency regulation in that country; and 3. The country's stringency of taxation rules. A rating of 10 indicates that crypto is banned, and zero means full adoption of cryptocurrency as a currency and tax exempt status.

Taxation

The Canada Revenue Agency treats cryptocurrency as a commodity, and taxes related income either as business income (100% of individual's marginal tax rate), or capital gains (50% of individual's marginal tax rate).

In Canada, to assess whether the proceeds from a cryptocurrency transaction are business profits or capital gains, a court will ultimately examine a wide range of factors—including, the frequency of transactions, the duration of ownership, the taxpayer's knowledge of the cryptocurrency market, the relationship of the cryptocurrency transaction to the taxpayer's usual work or business, the time the taxpayer spends on cryptocurrency activities, and whether the taxpayer obtained financing to participate in the cryptocurrency transaction.[i]

SEC regulations in the U.S. have deemed BTC and ETH to be currency, and the rest of cryptocurrencies to be commodities. However, the Internal Revenue Service (IRS) has deemed BTC to be property, taxed in the same way as any other asset you own, like stocks or gold. Taxation on the minting of NFTs is also dependent upon whether you are a hobbyist (capital gains tax) or conducting NFT minting as a business (taxed as income) in both Canada and the U.S.

Europe is divided on whether or not to tax cryptocurrency. France, Portugal, Switzerland, and Slovenia do not tax cryptocurrency. In Germany cryptocurrency is viewed as private money rather than a capital asset and is not taxed if held for more than a year, however, staking profits must be held for more than 10 years to be non-taxable. Tax heavy European countries include Norway, the UK, Belgium, the Netherlands, Spain, and Italy. Malta is an interesting dichotomy, in that HODLing does not attract capital gains tax,[ii] however crypto trading attracts up to 35% taxation.

Latin America is a little less divided than Europe, with El Salvador, Cayman Islands, Costa Rica, Mexico, Panama, Paraguay, and Venezuela having attractive cryptocurrency taxation legislation. However, Bolivia has banned BTC, and Ecuador has discussed a ban.

Asia also has a dichotomy of cryptocurrency taxation. Crypto-friendly countries include: Hong Kong, Malaysia, Singapore and Hainan, China (only test zone for China's blockchain technology development). Unfriendly countries include: Japan, South Korea, India, and the rest of China, where crypto is banned.

Cryptocurrency poses a significant risk of money laundering and terrorist financing, that could erode global tax transparency. Cryptocurrency shifts transactions away from traditional financial intermediaries, the typical information providers in third-party tax reporting regimes, to a new set of intermediaries which only recently became subject to financial regulation and are frequently not subject to tax reporting requirements with respect to their clients. Furthermore, the ability of individuals to hold crypto-assets in wallets unaffiliated with any service provider, and transfer such crypto-assets across jurisdictions in a peer-to-peer (P2P) method, poses a risk that crypto-assets will be used for illicit activities or to evade tax obligations. Overall, the characteristics of the crypto-asset sector have reduced tax administrations' visibility on tax-relevant activities carried out within the sector, increasing the difficulty of verifying whether associated tax liabilities are appropriately reported and assessed.[iii]

Canada is a member of the Joint Chiefs of Global Tax Enforcement (J5),[iv] which includes tax administrators from Australia, the Netherlands, the UK, and the U.S. The J5 is currently working together with AI to identify tax evaders, and specifically in the U.S. the IRS is using John Doe

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i Government of Canada, Canadian Revenue Agency; Guide for cryptocurrency users and tax professionals; https://www.canada.ca/en/revenue-agency/programs/about-canada-revenue-agency-cra/compliance/digital-currency/cryptocurrency-guide.html

ii https://cfr.gov.mt/en/inlandrevenue/legal-technical/Documents/Guidelines%20-DLTs%20Income%20tax.pdf

iii https://web-archive.oecd.org/2022-03-22/627496-public-consultation-document-crypto-asset-reporting-framework-and-amendments-to-the-common-reporting-standard.pdf

iv https://www.canada.ca/en/revenue-agency/programs/about-canada-revenue-agency-cra/compliance/cra-international-collaboration-combat-tax-evasion-joint-chiefs-global-tax-enforcement/j5-commuinique.html summonses to identify parties that are transacting in cryptocurrency over USD $20,000 that may not be reporting those transactions.[i]

CONCLUSION

The past two years have confirmed the riskiness of cryptocurrency from market volatility of the value of cryptocurrency, to credit, liquidity, and operational risk of failed cryptocurrency exchanges, to operational risk of cybersecurity breaches of exchanges and individuals, to compliance risk due to money laundering, and reputational risk from the association with or investment in cryptocurrency exchanges that have failed.

IIROC has recently approved membership for one cryptocurrency exchange, with several others awaiting membership. One of the benefits of IIROC membership is that it makes the exchanges eligible to insure users in the event the exchange goes bankrupt. On the downside, a relatively high Canadian tax rate (100% on trading income, 50% on capital gains) may continue to drive cryptocurrency innovation to more favourable tax destinations or to peer-to-peer (P2P) transactions that remain unreported and untaxed.

The immediate future of cryptocurrency remains volatile. Contagion from recent large exchange failures and legal charges focus the attention of investors, financial institutions, and governments on the risks of cryptocurrency and the importance of regulation and transparency to truly facilitate safe adoption and innovation in the long-term.

i U.S. Department of Justice, Office of Public Affairs; Court Authorizes Service of John Doe Summons Seeking the Identities of U.S. Taxpayers Who Have Used Cryptocurrency, Tuesday, August 16, 2022; https://www.justice.gov/opa/pr/court-authorizes-service-john-doe-summons-seeking-identities-us-taxpayers-who-have-used-2

Appendix

Global Cryptocurrency Stringency Rating: Acceptance, Regulation, and Taxation

REGULATORY REQUIREMENTS BY JURISDICTION

ISO*	Jurisdiction	Rating	Active Trading (i.e., Trading as a Business)	Holding & Subsequently Selling	Cryptocurrency Mining as a Business	Reference
AU	Australia	8	Taxable as Income	Short-term capital gains (i.e., gains resulting from the disposal of crypto-assets held for less than 1 year) are taxable as income. Long-term capital gains (i.e., gains resulting from the disposal of crypto-assets held for more than 1 year) receive a 50% discount on any capital gain.	Taxable as Income	Koinly. (2022, August 3). Crypto Tax Australia: Here's How Much You'll Pay in 2022. https://koinly.io/guides/crypto-tax-australia/
US	United States	8	Taxable as Income	Short-term capital gains (i.e., gains resulting from the disposal of crypto-assets held for less than 1 year) are taxable as income. Long-term capital gains (i.e., gains resulting from the disposal of crypto-assets held for more than 1 year) are taxed at a 0%, 15% or 20% tax rate depending on the investor's taxable income.	Taxable as Income	Internal Revenue Service (IRS). (2022, March 23). Frequently Asked Questions on Virtual Currency Transactions. https://www.irs.gov/individuals/international-taxpayers/frequently-asked-questions-on-virtual-currency-transactions
	Puerto Rico	7	Taxable as Income	Exempt from capital gains	Taxable as Income	
CA	Canada	9	Taxable as Income	Taxable as capital gain. As such, 50% of the capital gain is taxable.	Taxable as Income	Canada Revenue Agency (CRA). (2021, June 26). Guide for cryptocurrency users and tax professionals. https://www.canada.ca/en/revenue-agency/programs/about-canada-revenue-agency-cra/compliance/digital-currency/cryptocurrency-guide.html

* Some entries are country codes, others describe a jurisdiction (EU)

ISO*	Jurisdiction	Rating	Active Trading (i.e., Trading as a Business)	Holding & Subsequently Selling	Cryptocurrency Mining as a Business	Reference
UK	United Kingdom	5	Taxable as Income, Parliament voted in favor of crypto as regulated financial instrumet in the Financial Services and Markets Bill, clause 14, October 24, 2022	Taxable as capital gain. As such, capital gain is taxed at a 10% rate if the gain is within the basic income tax band. Otherwise, the capital gain is taxed at a 20% tax rate.	Taxable as Income	GOV.UK. (2022, February 22). HMRC Internal Manual Cryptoassets Manual. https://www.gov.uk/hmrc-internal-manuals/cryptoassets-manual
	Britain	5				
	Northern Ireland	5				
EU	European Union[i, ii, iii]					
EU	Austria	6	Taxable as Income (not at the special rate of 27.5% but instead according to the progressive income tax thresholds).	Crypto-assets purchased prior to February 28, 2021 will be tax exempt upon disposal if held for longer than 1 year. However, if crypto-asset is held for less than 1 year and was purchased prior to February 28, 2021, profits will be subject to income tax. For crypto-assets acquired after February 28, 2021, capital gains will be taxed at a special rate of 27.5%.	Taxable as Income (not at the special rate of 27.5% but instead according to the progressive income tax thresholds)	Federal Ministry Republic of Austria. (2022, May 25). Tax treatment of cryptocurrencies. https://www.bmf.gv.at/en/topics/taxation/Tax-treatment-of-crypto-assets.html#:~:text=Pursuant%20to%20Section%2027a%20para,the%20taxation%20of%20other%20income.
	Belgium	7	33% taxation policy on capital gains for cryptocurrency transactions	50% taxation scheme from professional income on cryptocurrency trades		Cointelegraph, Previously, Belgium adopted cryptocurrency taxation policies in 2017.

i Partial implementation of 5AMDL

ii Registration is required prior to operating in the jurisdiction as of March 2022.

iii https://rm.coe.int/0900001680a59ddf

ISO*	Jurisdiction	Rating	Active Trading (i.e., Trading as a Business)	Holding & Subsequently Selling	Cryptocurrency Mining as a Business	Reference
EU	Bulgaria	5	Taxable as income	Capital gains not taxed. If you purchased a virtual currency some time ago, its value (the price of Bitcoins, for example) has increased and then you have purchased an asset directly with it, then the difference between the purchase price and the value of the asset is not taxed or declared. This is considered an increase in the purchasing power of the cryptocurrency, as is the purchase of GBP, for example, which then rise in price. However, this only applies if it happens once and is for personal use.	Individuals engaged in the mining of cryptocurrency are treated as traders within the meaning of the Commercial Law. As a sole trader, one is taxed at 15% on profits. For legal entities, the taxable income is formed in accordance with the Corporate Income Tax Act.	
	Croatia	3	Cryptocurrency trading is considered a "financial transaction", taxed as income only if exchanged for a fiat currency.	Income resulting from cryptocurrency sales are subject to a personal income tax based on capital gains. Croatia residents are taxed at 12%, while Zagreb residents are taxed at an 18% rate. If held for more than 2 years, gains are not taxed.	Income greater than 7.5 Million Kuna (approximately $1M USD) per year is taxed at a rate between 10 - 18%.	https://www.expatincroatia.com/cryptocurrency/#:~:text=Income%20from%20the%20sale%20of,tax%20called%20porez%20na%20dohodak.
	Cyprus[i]	2	profits from trading cryptocurrencies are not taxed. VAT is also exempted from this	Exempt from capital gains taxation	Exempt from taxation, but if run as a business then taxed at 12.5%.	https://venturesafrica.com/crypto-regulations-is-cyprus-a-crypto-tax-haven/#:~:text=As%20stated%20earlier%2C%20buying%20and,in%20tax%20for%20that%20profit.
	Czech Republic					
	Denmark					
	Estonia					
	Finland					

i Cyprus Securities and Exchange Commission complies, Central Bank of Cyprus intends to comply once the transposition of EU 2018/843 into domestic legislation is completed.

ISO*	Jurisdiction	Rating	Active Trading (i.e., Trading as a Business)	Holding & Subsequently Selling	Cryptocurrency Mining as a Business	Reference
EU	France	8	Taxable as bénéfices non commerciaux (BNC). As such, income is taxed at a rate of 45%.	Taxable as Bénéfices Industriels et Commerciaux (BIC). As such, capital gain is taxed at a rate of 30%.	Taxable as bénéfices non commerciaux (BNC). As such, income is taxed at a rate of 45%.	Euronews. (2021, October 14). France is grappling with how to tax cryptocurrencies such as Bitcoin. https://www.euronews.com/next/2021/10/14/france-is-grappling-with-how-to-tax-crypto-currencies-such-as-bitcoin Ministère de l'Économie, des Finances et de la Souveraineté industrielle et numérique. (2022, July 21). Quel régime fiscal s'applique aux cryptomonnaies ? https://www.economie.gouv.fr/cedef/regime-fiscal-cryptomonnaies
	Germany	6	Earnings above €256 are taxable as income.	"Short-term capital gains (i.e., gains resulting from the disposal of crypto-assets held for less than 1 year) are taxable upon disposal. However, each taxpayer is allowed up to €600 per calendar year tax free. Long-term capital gains (i.e., gains resulting from the disposal of crypto-assets held for more than 1 year) are tax exempt."	Earnings above €256 are taxable as income.	Koinly. (2022, May 30). Crypto Tax Guide Germany 2022 [Kryptowährung Steuer]. https://koinly.io/guides/crypto-tax-germany/
	Greece	0	No specific direction on taxation of income from the Greek tax authority in 2020, 2021 strategic plan	If Greece provides direction on crypto taxation it would impose a 15 per cent tax on capital gains from crypto transactions	No specific direction on taxation of income from the Greek tax authority in 2020, 2021 strategic plan	https://www.lexology.com/library/detail.aspx?g=29e60be2-354b-412d-9dc7-efa10bf5ba84 ?g=29e60be2-354b-412d-9dc7-efa10bf5ba84
	Hungary					
	Ireland	8	Taxable as income	Taxable as a capital gain. As such, capital gain is taxed at a rate of 33%.	Taxable as income	Koinly. (2022, September 23). Ireland Crypto Tax Guide 2022. https://koinly.io/guides/crypto-tax-ireland/

ISO*	Jurisdiction	Rating	Active Trading (i.e., Trading as a Business)	Holding & Subsequently Selling	Cryptocurrency Mining as a Business	Reference
EU	Italy	7	Taxable as income	Capital gains would be taxed as miscellaneous income if a taxpayer, during the tax year, holds cryptocurrencies whose value, on all his wallets, for more than seven working days in a row during the year, has exceeded the threshold of €51,645.69 (a threshold to be calculated at the "exchange rate in force" on January 1 of that tax year).	Unclear based on current tax legislation.	"Global Legal Insights. (2022). Blockchain & Cryptocurrencies Laws and Regulations 2022 | Italy. https://www.globallegalinsights.com/practice-areas/blockchain-laws-and-regulations/italy#chaptercontent4 The Cryptonomist. (2021, October 29). Italy's situation regarding taxation and cryptocurrencies. https://en.cryptonomist.ch/2021/10/29/italys-situation-regarding-taxation-and-cryptocurrencies/"
	Latvia[i]					
	Lithuania					
	Luxembourg					
	Malta	3	Crypto is recognized as a unit of account, if day trading taxed as income at 35%, there are structures that can reduce this to 1 to 5%.	Crypto is recognized as a unit of account, no capital gains	Taxed as income	
	Netherlands	7	Taxable as income	Capital gains tax does not exist. Instead, investors are taxed on an assumed fictitious gain based on the value of their asset from the start to the end of the financial year. As such, HODLing crypto is taxed. Investors pay 31% tax on an assumed fictitious gain of between 0.03% and 5.69% depending on the total value of the investor's assets.	Taxable as income	Koinly. (2021, October 5).How is Crypto Taxed Around The World in the 2020-2021 Tax Year? https://koinly.io/blog/crypto-tax-world/

i Currently Latvia follows the Law on the Prevention of Money Laundering and Terrorism and Proliferation Financing

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EU	Poland					
	Portugal	3	Tax free as income, and not considered gains.	Non-Taxable (Capital gain tax not applicable to crypto-assets)	Taxable as income	Get Golden Visa. (2022, July 21). Portugal for Crypto Traders: The Ultimate Guide. https://get-goldenvisa.com/crypto-portugal#:~:text=traders%20and%20investors.-,Tax%20on%20Cryptocurrency%20Gains%20in%20Portugal,between%2028%20and%2035%20percent. Koinly. (2022, August 1). Crypto Tax Free Countries 2022. https://koinly.io/blog/crypto-tax-free-countries/
	Romania					
	Slovakia					
	Slovenia					
	Spain	7	Profits are subject to IRPF (Impuesto Sobre la Renta de las Personas Físicas), that is income tax. This tax is made up of a progressive state tax rate and an autonomous community tax rate.	Capital gains are subject to Renta del Ahorro (Income Savings Tax). This tax rate varies progressively from 19% to 26%.	Profits are subject to IRPF (Impuesto Sobre la Renta de las Personas Físicas), that is income tax. This tax is made up of a progressive state tax rate and an autonomous community tax rate.	Koinly. (2022, February 14). Spain Crypto Tax Guide 2022. https://koinly.io/guides/crypto-tax-spain/
	Sweden	8	Taxable as income	Taxable as a capital gain. As such, capital gain is taxed at a rate of 30%.	Taxable as income	Koinly. (2022, January 1). How cryptocurrencies are taxed in Sweden - Complete guide. https://koinly-io.translate.goog/sv/guides/deklarera-kryptovalutor/?_x_tr_sl=sv&_x_tr_tl=en&_x_tr_hl=en&_x_tr_pto=sc#skatt-pa-inkomst-fran-mining

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	Albania[i]					
	Armenia					
	Azerbaijan					
	Balkans					
	Belarus	0		In 2018 Belarus legalised crypto activities and exempted all individuals and busineseess from crypto tax for 5 years. Up for review in 2023.		
	Bosnia & Herzegovina					
	Georgia					
	Gibraltar			Non-Taxable (Capital Gain Tax Not Applicable)		Global Legal Insights. (2021, October 21). Blockchain & Cryptocurrencies Laws and Regulations 2022 | Gibraltar. https://www.globallegalinsights.com/practice-areas/blockchain-laws-and-regulations/gibraltar#chaptercontent4
	Guernsey					
	Iceland					
	Isle of Man					
	Jersey					
	Kosovo					
	Liechtenstein					
	Macedonia	10	Banned			
	Moldova					
	Montenegro					
	Norway					

i MONEYVAL decided that Albania should remain in the enhanced follow-up procedure and report back on further progress to strengthen its implementation of AML/CFT measures on a yearly basis.

ISO*	Jurisdiction	Rating	Active Trading (i.e., Trading as a Business)	Holding & Subsequently Selling	Cryptocurrency Mining as a Business	Reference
	Russia	10	Banned by Putin July 2022	Taxable as Income at a rate of 13% and from January 1, 2021, a rate of 15% is applied on income exceeding 5 million rubles.		
	Serbia					
	Switzerland	4	Taxable as income, if held for less than 6 month, or the value of transactions are greater than 5 times the total value of your crypto assets for the year.	"Capital gains are tax exempt as long as all of the following criteria is met: - Crypto-asset has been held for at least 6 months prior to disposal, - The investor's trading turnover is smaller than 5 times the investor's holding at the beginning of the financial year, - The investor's net capital gain is smaller than 50% of the investor's total income throughout the financial year, - The investor has no debt financing, - The investor uses derivatives solely for hedging."	Taxable as income	RSM. (2021, June 2). Cryptocurrency: tax treatment in Switzerland. https://www.rsm.global/switzerland/en/news/cryptocurrency-tax-treatment-switzerland
	Ukraine					
	EEA – EFTA State					
	Iceland					
	Algeria	10	Banned			https://gurcanpartners.com/en/latest-cryptocurrency-regulations-in-hungary/
	Nigeria	2	Crypto currency has been deemed securities by the NSEC in 2020, all transactions are subject to a 10% capital gains tax.	Crypto currency has been deemed securities by the NSEC in 2020, all transactions are subject to a 10% capital gains tax.	Crypto currency has been deemed securities by the NSEC in 2020, all transactions are subject to a 10% capital gains tax.	

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	South Africa	8	Taxable as income	Taxable as capital gain. As such, 40% of the capital gain is taxable.	Taxable as income	Koinly. (2022, June 20). South Africa Crypto Tax Guide 2022. https://koinly.io/guides/crypto-tax-south-africa/
	Japan	10	Crypto-assets gains and profits are taxed as miscellaneous income. As such, gains and profits are taxed at the investor's income tax bracket. Miscellaneous Income refers to income that does not fall under interest income, dividend income, real estate income, business income, salary income, retirement income, forestry income, capital gains, and temporary income.	Crypto-assets gains and profits are taxed as miscellaneous income. As such, gains and profits are taxed at the investor's income tax bracket. Miscellaneous Income refers to income that does not fall under interest income, dividend income, real estate income, business income, salary income, retirement income, forestry income, capital gains, and temporary income.	Crypto-assets gains and profits are taxed as miscellaneous income. As such, gains and profits are taxed at the investor's income tax bracket. Miscellaneous Income refers to income that does not fall under interest income, dividend income, real estate income, business income, salary income, retirement income, forestry income, capital gains, and temporary income.	Koinly. (2022, January 23). Japan Crypto Tax Guide 2022. https://koinly.io/guides/crypto-tax-japan/
	India	9	Irrespective of the nature of income, a flat 30% tax on crypto profits and income is imposed. In addition, a 1% tax deducted at source will be imposed if the crypto transaction exceeds 50,000 INR in a single fiscal year.	Irrespective of the nature of income, a flat 30% tax on crypto profits and income is imposed. In addition, a 1% tax deducted at source will be imposed if the crypto transaction exceeds 50,000 INR in a single fiscal year.	Irrespective of the nature of income, a flat 30% tax on crypto profits and income is imposed. In addition, a 1% tax deducted at source will be imposed if the crypto transaction exceeds 50,000 INR in a single fiscal year.	Koinly. (2022, June 28). Crypto Tax India: Ultimate Guide 2022. https://koinly.io/guides/crypto-tax-india/

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	Argentina	1	Generally unregulated, in 2017 the tax reform Law states that individuals or businesses who receive payments in cryptocurrencies in exchange for goods or services will be subject to a rate of 0.25%	Generally unregulated, in 2017 the tax reform Law states that individuals or businesses who receive payments in cryptocurrenies in exchange for goods or services will be subject to a rate of 0.25%	Generally unregulated, in 2017 the tax reform Law states that individuals or businesses who receive payments in cryptocurrenies in exchange for goods or services will be subject to a rate of 0.25%	
	Israel	5	The ITC says that cryptocurrencies are taxable capital assets ITO Section 88, subject to capital gains tax up to 33%.	The ITC says that cryptocurrencies are taxable capital assets ITO Section 88, subject to capital gains tax up to 33%.	The ITC says that cryptocurrencies are taxable capital assets ITO Section 88, subject to capital gains tax up to 33%.	
	Brazil	3		Taxable as capital gain. Tax rates vary from 15% (for gains under BRL 5 million) to 22.5% (for gains over BRL 30 million). However, in cases where gains are limited to BRL 30,000 per month, no taxation is imposed.		Global Legal Insights. (2022). Blockchain & Cryptocurrencies Laws and Regulations 2022 | Brazil. https://www.globallegalinsights.com/practice-areas/blockchain-laws-and-regulations/brazil#chaptercontent4
	Chile	4	Taxable as income for a business or individual, since May 2018	Taxable as income for a business or individual, since May 2018	Taxable as income for a business or individual, since May 2018	
	Columbia	0	Non-Taxable, none of the transactional platforms or marketers of virtual currencies are regulated by Columbian law.			
	Cayman Islands	0	Non-Taxable	Non-Taxable	Non-Taxable	Koinly. (2022, August 1). Crypto Tax Free Countries 2022. https://koinly.io/blog/crypto-tax-free-countries/

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	El Salvador1	1	El Salvador was the first country to make BTC legal tender. All foreign investors are exempt from paying tax on crypto imcome or gains.			
	Venezuela	1	Venezuela's government passed a bill aiming to collect up to 20% in taxes on cryptocurrency transactions			
	Turkey	3	No individual income tax on crypto trading as of September 2022, however the government is banning use of crypto and considering income tax.			Kuzmicheva, A. (2021, January 18). What taxes to pay the owners of cryptocurrencies in 2021. https://www.rbc.ru/crypto/news/600574149a7947308ed29850
	Belarus	0		In 2018 Belarus legalised crypto activities and exempted all individuals and busineseess from crypto tax for 5 years. Up for review in 2023.		
	People's Republic of China	10	Taxable income for individual income tax,			
	Malaysia	3	Taxable as income if trading as a business	Non-Taxable (Capital Gain Tax Not Applicable)	Taxable as income	Koinly. (2022, August 1). Crypto Tax Free Countries 2022. https://koinly.io/blog/crypto-tax-free-countries/

ISO*	Jurisdiction	Rating	Active Trading (i.e., Trading as a Business)	Holding & Subsequently Selling	Cryptocurrency Mining as a Business	Reference
	Singapore	5	Tax free as income, and no capital gains. Monetary Authority of Singapore plans to tighten retail-investor access to crypto, a clampdown on marketing, and requiring virtual-asset providerrs to be licensed locally even if they only do business overseas.	Non-Taxable (Capital Gain Tax Not Applicable)	Taxable as income	Inland Revenue Authority of Singapore. (2020). IRAS e-Tax Guide Income Tax Treatment of Digital Tokens. https://www.iras.gov.sg/media/docs/default-source/e-tax/etaxguide_cit_income-tax-treatment-of-digital-tokens_091020.pdf?sfvrsn=91dbe1f7_0