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**AmurCon 2021: International Scientific Conference****LEGAL STATUS AND REGULATION OF CRYPTO-ASSETS**

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**Abstract**

Blockchain and distributed ledger technologies are disrupting the world as we know it. Cryptocurrencies are increasingly being adopted not only by a large number of retail investors but financial institutions and even countries are embracing them. Nonetheless, there is a significant number and types of cryptocurrencies and, their treatment will likely depend on their legal status, use, and nature. Some jurisdictions may equate the legal status of cryptocurrencies to commodities or property, others may consider them to be digital currencies or legal tenders, while others may treat them as securities, financial instruments, or as a different asset class such as digital assets. Consequently, countries may regulate a cryptocurrency in different legal categories and might be overseen by a range of authorities depending on their use case and nature. This article aspires to shed some light on legal grey areas by studying how cryptocurrencies are regulated in a variety of jurisdictions and how their legal status is defined.

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*Keywords:* Blockchain, Cryptocurrency, Digital Asset, Legal Status

## **1. Introduction**

Many researchers and decision-makers liken cryptocurrencies to the old Wild West, but the reality is that cryptocurrencies have become mainstream in the last decade. There has been growing interest in cryptocurrency scientific research from different fields, including computer science and engineering, economics, business and finance, law and regulatory (Orastean et al., 2019). Cryptocurrencies continue to draw a lot of attention from investors, entrepreneurs, regulators and the general public. Further debates concern inter alia: the classification of cryptocurrencies as commodities, money or something else; the potential development of cryptocurrency derivatives and credit contracts in cryptocurrency; the use of initial coin offerings (ICO) employing cryptocurrency technology to finance start-up initiatives; and the issue of digital currencies by central banks employing cryptocurrency technologies (Giudici et al., 2020). Industries applaud blockchain technology because of its nature of removing intermediaries involved in assets and value exchange (Thota & Krishna, 2021). Blockchain, along with some supporting technologies such as cryptography, enables a decentralized, highly secure and immutable database of transactions (Ahuja & Wheeler, 2021). Blockchain technology allows untrusting parties with common interests to co-create a permanent, unchangeable, and transparent record of exchange and processing without relying on a central authority. It serves as an immutable ledger that allows transactions to take place in a decentralized manner and is secured by cryptographic primitives (Aggarwal & Kumar, 2021). Cryptocurrency and blockchain are some of the most beautiful digital transformations occurring around the world (Tandon et al., 2021), and are becoming an integral part of modern financial markets all over the globe (Alekseenko & Gidigbi, 2021). While is a relatively new asset class, that does not mean there are no governing laws, standards, or guidelines, raising the question of what the legal status of cryptocurrencies should be and how countries shall regulate them.

## **2. Problem Statement**

As DLTs struggle to prevail and become mainstream, justifying its potential to solve the most wicked challenges of our age proved to be much easier than facing the issues limiting their competition in adoption, technical improvements, and capacity to scale (Coppi, 2020). Digital assets touch a plethora of legal issues, such as taxation, securities law, futures and swap markets, privacy, cybercrime and anti-money laundering policies, centralized and decentralized exchanges, initial coin offerings (ICOs), security token offerings (STOs), initial exchange or decentralized offerings (IEOs and IDOs). Given the vast array of cryptocurrencies and different jurisdictional approaches, their use case and nature shall be considered when determining their legal status and regulation. There are also jurisdictional issues, cryptocurrency is a global market place and no one controls it, there is no international body that regulates cryptocurrency or global agreement on how it should be governed. Each nation makes its laws and conflicts often emerge. There can also be jurisdictional overlaps when it comes to the oversight of these digital assets.

## **3. Research Questions**

- 3.1. What is the legal status of digital assets, crypto assets, cryptocurrencies, and tokens?
- 3.2. How should digital assets be regulated? Which has been the approach of the leading crypto-friendly jurisdictions?
- 3.3. What are the different categories for digital assets?

## **4. Purpose of the Study**

### **4.1. Main purpose**

The main purpose of this article is to comprehend, determine and compare the different legal statuses and treatment given to digital assets and cryptocurrencies in several jurisdictions around the world, by analysing different approaches regarding the legal nature, terminology, concept, business practice, standards and criteria to define.

### **4.2. Secondary purpose**

The secondary purpose of this research is to study and analyse the best approach to regulate cryptocurrencies and digital assets, considering existing legal frameworks, regulatory guidelines, proposals, rulings, judicial decisions, historical enforcement, community standards and best practices in selected crypto-friendly countries and regional organizations.

## **5. Research Methods**

### **5.1. General scientific methodology**

The methodological basis of the research consists of general scientific methods of cognition: dialectical method, generalization method, theoretical and empirical method, induction and deduction methods, abstraction method, etc.

### **5.2. Special scientific methodology**

In addition, the specifics of the object under study required extensive use of special methods of cognition: the comparative legal method, the method of legal modelling, historical and legal analysis, the formal-legal method, etc., which contributed to a comprehensive assessment of the ways of development of legal regulation of the use of digital technologies in the field of civil law, cryptocurrencies and digital assets in specific.

## **6. Findings**

Technologies, such as blockchain and digital ledger technology, impose concrete norms on its users would require the regulator to take certain measures. Most importantly, a government or any regulator that is concerned about the functioning of its normative framework would want to check the compatibility of newly introduced technologies and their underlying norms with their existent laws and

principles (Zwitter & Hazenberg, 2020). There are over 17000 cryptocurrencies and each of them has its particularities and use case. Bitcoin's main use, for example, is a store of value, similar to gold, but it can be also used as a means of payment. Other cryptocurrencies, such as XRP, are focused on cross-border settlements and transactions. Another extremely competitive and popular space is the smart contracts category, where layer-one protocols such as Ethereum, Solana, Avalanche, Cardano, and Polkadot, are able to offer automatically executed agreements, without an intermediary. Other categories may include oracles, storage, metaverse, non-fungible tokens (NFTs), exchange tokens, stable coins, governance tokens, utility tokens and security tokens. Consequently, their use case and nature shall be considered when determining their legal status. There can also be competing powers to regulate and oversee this asset class. A perfect example of this is the United States. In 2015, the Commodity Futures Trading Commission (CFTC) first found that: "Bitcoin and other virtual currencies are encompassed in the [commodity] definition and properly defined as commodities". The Internal Revenue Service (IRS) stated that virtual currencies shall be treated as "property" (Notice 2014-21, 2014-16 I.R.B. 938). In 2017, the Securities and Exchange Commission (SEC) specified that many cryptocurrencies represent investment securities, and has increasingly used its enforcement mechanism against digital assets and crypto-related businesses. Nonetheless, blockchain networks can be fruitfully conceptualized according to the categories of comparative law. In particular, transnational law refers to any law which transcends state laws. The conceptual framework of such a theory includes, for example, the shift from regulation to co-ordination, the hybridization of private and public regimes, the relationship between soft law and hard law, and, finally, the establishment of regimes capable of legislating and enforcing their norms (Poncibo, 2020).

### **6.1. Classification of crypto assets**

A cryptocurrency is a digital asset that enables people to transact with each other since it could be used as a medium of exchange. Furthermore, cryptocurrency owners store their assets in a digitally distributed ledger in a system of a decentralized network that records transactions of various users. Cryptocurrencies are not issued by central authorities; therefore, their value mostly comes from the scale of participation within the market (Aysan et al., 2021). The distributed nature of the database used by DLT implies that it is shared on a network in which each participant – i.e., each node – normally holds a copy of the ledger (Carullo, 2020).

Regulators and decision-makers may consider several elements when determining the legal status and nature of a particular digital asset or cryptocurrencies. This includes its purpose, use case, technical layer, underlying value, utility, fungibility, distribution mechanism, level of decentralization, whether there is an expectation of profit or whether it is backed by any asset or FIAT currency.

- a. *Cryptocurrencies*: are cryptographically secured digital representations of value or contractual rights that can be transferred, stored and traded electronically.
- b. *Security tokens*: which can represent rights or interest in a business, such as ownership, equity, repayment of a specific sum of money, or profit-sharing. They may also be transferable securities or financial instruments.

- c. *Utility tokens* can be redeemed for access to a specific product or service typically provided using a DLT platform. They are usually accepted as payment for particular goods or services. Filecoin and Basic Attention Token are perfect examples of this.
- d. *Governance tokens* are crypto-assets that represents voting power and decision-making rights.
- e. *Asset-backed tokens*: came into fruition from the tokenization of assets. Instead of trading the asset itself, the token is traded.
- f. *Stablecoins*: designed to minimize volatility. The value of these assets is pegged to a stable value such as fiat currency.
- g. *Non-fungible tokens*: are unique, non-interchangeable cryptographic assets stored on a blockchain.

The technologies used to develop a blockchain are the result of already existing technologies. That is to say that blockchain protocols did not come out of the blue, instead, they are the unique combination of old technologies already developed to build decentralized networks (Cappiello, 2020). Solid regulatory frameworks are established very similarly, but at a slower pace, each regulation is built on previous legal frameworks. As new technological developments emerge the need for common legal terminologies and legal classifications become very clear.

## **6.2. Jurisdictional comparison of legal status, treatment and regulation**

### **6.2.1. Cryptocurrencies treated as property**

**Australia** – In 2017, The Australian government declared cryptocurrencies, digital currencies and crypto exchanges legal and subjected them to AML/CTF regulation. Eventhough there is no specific regulation for blockchain or distributed ledger technologies, the government has maintained a progressive and non-interventionist approach for crypto-related business. Nonetheless, cryptocurrencies for tax purposes are viewed by the Australian Taxation Office as assets and government institutions do not equate them as money or currency. Additionally, corporate and securities regulation may apply when cryptocurrencies are used as financial products.

**United Kingdom** – The UK High Court determined that crypto assets shall be recognized as property, this in accordance with the UK Cryptoassets Taskforce report where it was recommended to treat such assets as property as long as they have such characteristics of a property. The situation is complex given that there is no explicit definition of property by UK acts. However, the Taskforce recommended that each scenario should follow a case-by-case analysis and principles set out in authoritative descriptions such as *National Provincial Bank v. Ainsworth*. Even though the United Kingdom has no specific regulation about cryptoassets, nor has a blanket prohibition of them, the UK has been a pioneer country when it comes to policy approaches and guidelines for such digital assets. The UK Cryptoassets Taskforce in particular pointed out a number of guidelines, including that “cryptocurrencies” are a subcategory of “crypto assets”. Cryptoassets possess intrinsic characteristics such as i) intangibility, ii) cryptographic authentication, iii) use of distributed transaction ledgers, iv) decentralization, and v) rule by consensus. The Taskforce also proposed different categories that were later implemented by other countries such as i) exchange tokens, ii) security tokens, and iii) utility tokens.

**United States** – Virtual currencies such as bitcoin are treated as property for tax purposes by the Internal Revenue Service as seen from its Notice 2014-21, 2014-16 I.R.B. 938.

### 6.2.2. Cryptocurrencies as commodities

**Indonesia** – The country’s Commodity Futures Trading Regulatory Agency issued a regulatory framework to equate cryptocurrencies as commodities in the scope of trading cryptocurrencies in the context of futures.

**The United States** – In 2014, the Commodities Futures and Trading Commission (CFTC) was interpreting cryptocurrencies, including Bitcoin as commodities, demanding jurisdiction over trading, derivatives and the spot market. When it comes to taxation, however, the IRS treats cryptocurrencies as property.

### 6.2.3. Cryptocurrencies as securities

Cryptocurrencies may also be treated as securities or financial instruments, especially considering several projects raise their capital through initial coin offerings (ICOs), companies may also raise funds through security token offerings (STO), or they may agree to attach the rights and obligations of equities, debt instruments or revenue-sharing agreement to the issuance of a token.

**United States** – The Securities and Exchange Commission (SEC) has traditionally relied on the Howey Test to consider whether or not a transaction is an investment contract and therefore security, and has relied on its “regulation by enforcement” policy to oversee digital assets connected with securities regulation. Under US law, a security is a contract, transaction or scheme where a person gives money in a common enterprise, expecting profits from the efforts of third parties. The SEC have proposed initial coin offerings and security token offerings to be typically consider a security. These types of securities are often limited to accredited investors.

**Australia** – In 2019, the Australian Securities and Investments Commission (ASIC) made the decision that cryptocurrencies and other digital assets could be regulated and included in the country’s corporate and financial regulatory framework (the Corporations Act 2001 and the Australian Securities and Investments Commission Act 2001), especially when a business is considering raising funds by an initial coin offering (ICO), or if they are involved with cryptocurrency trading or crypto-assets (i.e., cryptocurrency, stable coins, or tokens).

**Canada** – Canada is a pioneer in the space as they have one of the first approved ETF and AML regulation connected with cryptocurrencies. The central bank of Canada has traditionally viewed this asset class as securities. Canada’s Securities Administrators (CSA) announced in the Staff Notice 46-307 and 21-329 securities regulation apply to initial coin or token offerings and platforms facilitating trading of crypto-assets.

**Germany** – Germany’s Financial Supervisory Authority (BaFin) officially classified Bitcoin and other cryptocurrencies as “legal financial instruments” and the country follows strict anti-money laundering measures by applying the fifth EU Money Laundering Directive.

**Singapore** – In the case digital tokens fall under the scope of a “security” the issuer of such token shall be registered under the Monetary Authority of Singapore (MAS). This supervisory body is also

responsible for overseeing the payment and exchange of digital payment tokens as set forth in the Payment Service Act.

#### **6.2.4. Cryptocurrencies as currency or legal tender**

A “currency” is a medium of exchange for goods and services. In short, it is money, in the form of paper or coins, usually issued by a government and generally accepted at its face value as a method of payment. A “legal tender” on the other hand, is a form of money that courts of law are required to recognize as satisfactory payment for any monetary debt.

**El Salvador** – The country officially declared Bitcoin as legal tender by the approval of the “Bitcoin Law” on 8 June 2021 (Dictamen no.3 8 June 2021). This regulatory framework regulates bitcoin as an “*unrestricted legal tender, with liberating power, unlimited in any transaction, and to any title that public or private natural or legal persons require carrying out*”. The exchange rate between bitcoin and the U.S. dollar will be freely established by the market. All prices may be expressed in bitcoin. All tax contributions may be paid in bitcoin. Exchanges in bitcoin shall not be subject to capital gains tax in the same way as any legal tender. For accounting purposes, the dollar shall be used as the reference currency. Every economic agent shall accept bitcoin as a form of payment when it is offered by the person acquiring a good or service.

**Switzerland (Lugano)** – In March 2022, three specific cryptocurrencies were classified as legal tenders in the city of Lugano. Bitcoin, USDT and LVGA token (a token created by the city itself) were accepted as “de facto” legal tender. Lugano’s residents are able to transact, invest, and even pay taxes or bills using these cryptoassets.

Countries such as Lithuania and Russia also relate the legal status of cryptocurrencies closer to that of virtual currencies. The observed scientific and technological advances predetermine that further progressive development of the industry will be defined by the formation of a new technological order based on scientific developments (Dudin et al., 2019). It is up to each jurisdiction to define the legal framework and nature of crypto assets that may have a significant impact on its monetary and fiscal policy, and how they interact with new emerging technologies such as virtual currencies, stable coins, central bank digital currencies.

#### **6.2.5. Cryptocurrencies as digital assets**

**Estonia** – As one of the first countries that provided a regulatory framework for the use and control of cryptocurrencies in 2017, Estonia became a crypto hub for companies endeavoring in the crypto universe. The country regulates cryptocurrencies as “value represented in digital form”. Crypto-related companies may apply for a Virtual Currency Service Provider license, which became very popular in the industry. Recent proposals, however, may introduce higher requirements to qualify for such companies, including an increase in the minimum paid-up capital as well as tougher AML compliance.

**Hong Kong** – The Hong Kong Monetary Authority (HKMA) have issued a number of circulars, consultations and discussion papers detailing the regulatory approach for cryptoassets. According to the latest paper, the Financial Stability Board (FSB) defines crypto-assets as “a type of private digital asset that depends primarily on cryptography and distributed ledger or similar technology. The legal framework

also includes a licensing regime for virtual asset service providers (VASP). Specific cryptocurrencies such as Bitcoin or Ether are often viewed by the regulators as “virtual commodities”. On the other hand, the Securities and Futures Commission (SFC) has powers over tokens that have security-like characteristics.

**Japan** – Cryptocurrencies in Japan are regulated under the Payment Services Act. Japan’s lawmakers were inclined to use of the term “crypto-asset” over virtual or digital currency. Crypto assets are considered as proprietary value instead of legal tender. This proprietary value may be used to purchase and/or borrow goods and services, as well as to be reciprocally exchanged for other proprietary value. Crypto assets in general, and cryptocurrencies in particular are not viewed as securities. The latest 2020 amendments also provided stricter regulations for virtual money users and more regulation for derivative crypto trading.

**Switzerland** – Cryptocurrencies are broadly classified as assets. The terminology “cryptocurrency” or “virtual currency” is not specifically defined by Swiss law, instead the Swiss authorities utilize the term “crypto-based asset” (*kryptobasierte vermögenswerte*), as seen from the Federal Ordinance on Banks and Savings Institution (FBO). These crypto-based assets may function as a payment mechanism to acquire goods or services or as an instrument for value transfers similar to money. The Swiss Federal Tax Administration (SFTA) concurs with this view stating that cryptocurrencies shall be deemed as “assets”. Furthermore, the Swiss Financial Market Supervisory Authority (FINMA) has identified in its ICO guidelines subcategories of cryptoassets, including payment tokens, utility tokens, stablecoins, and asset tokens (representing equity, debt or other type of right). On the other hand, a narrow portion of cryptocurrencies has been classified as legal tenders in a particular canton, and at the same time they may have to comply with securities regulation if the token or cryptoasset have intrinsic characteristics of a security, in this scenario such tokens/cryptoassets are considered to be “DLT Securities” and therefore regulated under the Swiss DLT act.

#### **6.2.6. Cryptocurrencies as a *sui generis* legal figure**

**Gibraltar** – With the approval of the distributed ledger technology act (the DLT framework), Gibraltar adopted a unique approach for regulating this type of technology. The legal framework regulates companies that uses distributed ledger technologies to transfer or store value, as a wider notion that just virtual assets.

**Malta** – Under Maltese legislation, cryptocurrencies are treated as “virtual financial assets”. This regulation follows the three basic functions of money: unit of account, store of value and medium of exchange. The country’s legal framework includes three different acts: the Virtual Financial Assets Bill, the Malta Digital Innovation Authority Bill, and the Technology Arrangements and Services Bill. The supervisory authority falls under the Malta Digital Innovation Authority (MDIA) that oversees token issuers, wallet providers, crypto exchanges, and crypto service providers. The MDIA was set up not to regulate cryptocurrencies or such assets, but to address technology arrangements constituting blockchain, other DLT or smart contracts, which very well may be used within cryptocurrencies or other virtual currencies (Ellul et al., 2020).



**Liechtenstein** – After adopting the Tokens and Trusted Technology (TT) Service Provider Act in 2020, Liechtenstein established one of the most well-rounded and clearest regulations for crypto assets. The token container law allows companies engaged with “trustworthy technologies” (TT) to acquire a license before the Financial Market Authority depending on the type of service they offer: Token Issuers, Token Generators, TT Key Custodians, TT Protectors, Physical Validators, TT Exchange Service Providers, TT Verifying Authority, TT Price Service Providers, and TT Identity Service Providers. The term “trustworthy technologies” is used in Liechtenstein as a neutral and technological term to encompass an extensive range of technology options instead of the specific terms “blockchain” and/or “distributed ledgers”. Liechtenstein designed a “technologically neutral” legal framework with an all-encompassing approach to address all aspects of tokenization (Lins & Praicheux, 2021). With this legal framework, the country positions itself as an innovator for the token economy, allowing issuers to tokenize assets in the physical world, such as real estate, cars, precious metals, bonds, equities, revenue-sharing agreements, among others.

**Luxemburg** – according to the *Commission de Surveillance du Secteur Financier* (CSSF) a digital token may grant rights to their corresponding holder, making it a digital representation of an interest, including value, right to receive revenue, benefits or access to goods or services. This approach is in line with the new EU proposals for crypto-assets. On the other hand, tokens or crypto-activities relating to fundraising must comply with the securities regulation.

#### **6.2.7. Legal Approach of the European Union (EU)**

The European Commission understands virtual currency as a digital representation of value that can be transferred, stored or traded electronically and can be used as means of payments. In 2020, the 6<sup>th</sup> Anti-Money Laundering Directive came into effect raising compliance regulations in the jurisdiction, including for crypto-related businesses. On this same year the EU Commission made a proposal on “Markets in Crypto-assets” (MiCa) and a regulation for the Pilot Regime for Distributed Ledger Technology-based Market Infrastructure as part of the EU Digital Financial Package. The MiCa proposal establishes minimum disclosure for the issuance and trading of crypto assets, as well as requirements for crypto-related service providers. The proposed regulation has a broad scope and covers an array of crypto assets including security tokens, asset-referenced tokens, utility tokens, and e-money tokens.

## **7. Conclusion**

As the blockchain universe matures, regulatory clarity is key to determining a country’s success when adopting and implementing this emerging technology. To achieve this, there is a need for precise and common terminology is needed, progressive authorities to create guidelines and effective enforcement.

When creating a regulatory framework for crypto assets, governmental authorities and decision-makers shall consider the legal nature, use case, features and category of each crypto asset. Not all crypto assets are the same, and each contains its intrinsic characteristics. Other aspects to consider by regulators

are existing legal acts, frameworks, guiding principles, proposals, rulings, judicial decisions, historical enforcement, community standards and best practices.

When determining the type and legal status of particular crypto assets, regulators shall have a holistic approach, and analyse a plethora of factors its purpose, use case, technical layer, underlying value, utility, fungibility, distribution mechanism, level of decentralization, whether it represents security, or if it is backed by any asset or FIAT currency.

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