

Cryptoeconomy in Brazil

2023

abcripto*

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Methodology

This study is based on the results of a survey applied between June 15 and 28, 2023, sent to companies offering crypto services in Brazil, that provided their incorporation data (CNPJ registration, headquarters), a description of their products and services along with selected services from a pre-defined list, its activities not directly related to virtual asset services, including those that are subject to licenses with the Central Bank or the CVM, some quantitative indicators of its activity and information about governance, risk and compliance.

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Introduction

In this report, ABCripto presents an innovative mapping of actors of the cryptoeconomy in Brazil, guided by the sector's evolving regulatory guidelines. This is the first study with an exclusive focus on the application of distributed ledger technologies to the provision of financial products and services.

Law 14.478/2022 targets service providers for virtual assets. This study addressed the following questions:

- Which companies provide virtual asset services in Brazil?
- Which services do they provide?
- What is their size?
- Where are they located?

We hope the answers we provide can help entrepreneurs, investors, financial institutions, professionals, and, most importantly, Brazilian authorities who wish to understand business models and associated risks in order to establish rules for the protection of financial stability, economic development, and investors and consumers of these services.

We also hope the data we present can contribute to the development of a consensus about the advantages and prospects of digital assets for market development, including greater investment diversification, efficiency, breadth of financial services, and financial inclusion.

With innovative and legal business models backed by a commitment to the integrity of the Brazilian Financial System, we seek to provide information and ideas to promote convergence between the current financial markets (also known as "traditional" finance) and the crypto market (also known as "decentralized" finance).



BERNARDO SRUR
CEO of ABCripto

Why crypto?

Investors are searching for more options for risk diversification, costs that are better suited to their needs, higher-quality data for decision-making, and more efficiency in cross-border transactions.

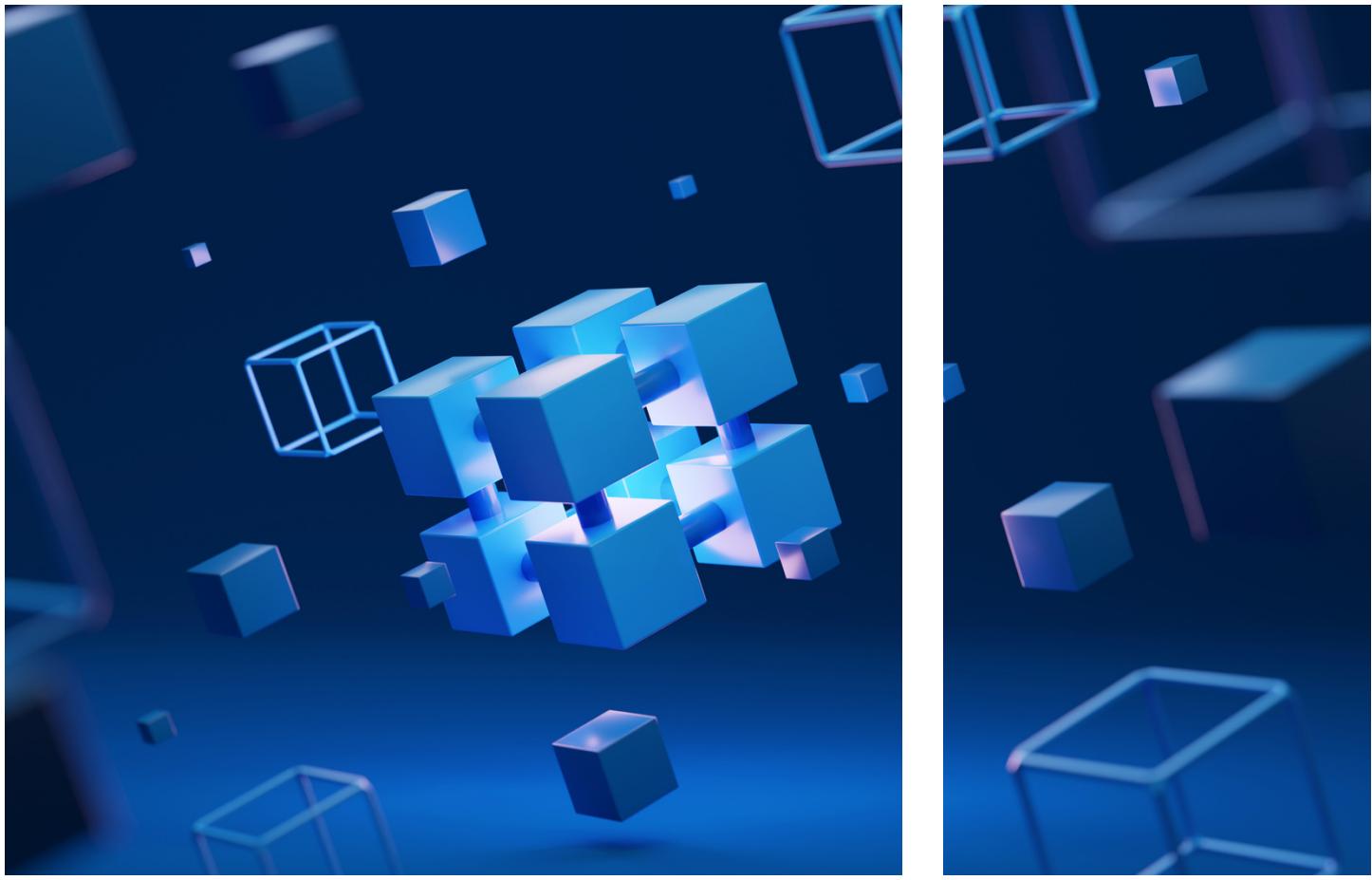
By utilizing digital channels, **intermediaries and market infrastructures** hope to improve operational efficiency, customer base, and product and service offerings. In particular, they want to enable system interoperability to securely share data, personalize, and enhance user experience.

Companies are trying to reduce the cost of capital, expand the sources of funding, improve investor relations, and rationalize the costs associated with complying to regulations.

In order to expand the Brazilian financial market, **authorities** are concerned with financial stability, investor protection, transparency, and security.

A long road, still in its early stages, takes cryptoeconomy enterprises closer to these objectives.

Since the inception of bitcoin, numerous experiments have failed. However, the emergence of the Ethereum network has allowed us to explore the potential of automating transaction flows (e.g., through smart contracts) until we reach a genuine transnational financial system with trading environments, whether centralized or decentralized, and new business models based on virtual assets.



The occurrence of illegal acts and the fraudulent nature of some projects must not eclipse the potential benefits of decentralized technologies for financial market innovation.

To fully appreciate these advantages, we must examine, at various levels of detail, what solutions have been offered based on these technologies, what their relationship is with traditional financial services, how the objectives stated above can (and are) achieved, and, most importantly, what the associated risks are and how to manage them.

Conducting a "census" of crypto actors is analogous to discovering the contours of this "new land in sight," creating a map for companies, associations, universities, and public entities to plan their excursions and forays into this territory, along with many entrepreneurs and those who finance such expeditions.

Virtual Asset Services

The concept of the **cryptoeconomy** implies the presence of a system that operates alongside the conventional economy, characterized by the utilization of decentralized technologies, specifically related to the concepts of cryptography, blockchain technology, decentralized finance (DeFi), and web3.

Law 14.478/2022 provides a definition of virtual assets that does not explicitly reference certain technologies. Instead, it highlights the presence of a **digital representation of value**, namely, a recorded entitlement inside an information system that can be traded electronically. The determination of the specific regulation of virtual assets is contingent upon the purposes for which they are intended.

In order to mitigate any problems with established regulations, the laws in question do not pertain to virtual assets that possess an economic nature already governed by recognized entities, such as national or international **currency, securities, financial assets**, and **vouchers** that serve as proof of entitlement to goods and services, such as loyalty program points and prizes.

The task of delineating the regulatory boundaries between the responsibilities of Brazilian authorities is not a straightforward one. However, gaining a comprehensive grasp of the various business models and engaging in communication with market agents can surely aid in this endeavor.

Ultimately, the entities responsible for delivering these services will be subject to regulation through the implementation of a set of standards. This regulatory framework will entail a system of requirements for licensing, obligations, restrictions, accountabilities, oversight, and potential sanctions.



A PROPOSAL FOR CATEGORIZATION

Law 14.478/2022 establishes a comprehensive range of virtual asset services, acknowledging their predominant utilization for the purposes of **payments or investments**.

Other elementary services are the **conversion** of virtual assets into fiat money and vice versa, as well as the **transfer** of virtual assets.

Additionally, Law 14.478/2022 lists virtual asset **custody** services, which facilitate the secure storage of these assets for investors as well as management of virtual asset portfolios.

Leaving room for expanding this list of services, Law 14.478/2022 closes its examples of virtual asset services of "participation in financial services and provision of services related to the offer by an issuer or sale of virtual assets".

In light of the frequent references to a revolution or disruption in the financial system within the realm of the cryptoeconomy, our approach is to reconcile the existing framework with the novel elements, trying to provide a valuable contribution towards establishing a common language that can be shared among various market participants from different generations.

In order to accomplish these goals, we have categorized virtual asset services into three distinct groups: intermediation, infrastructure, and issuance. Additionally, there is a residual category that will be further refined in collaboration with readers of this research in future iterations.

INTERMEDIATION

Exchanges (centralized or decentralized), distribution (sale and placement efforts), trading desk (over-the-counter) and market making.

INFRASTRUCTURE

Support for interoperability between systems and reduction of operational costs, including transaction settlement, electronic currency issuance, on-ramp/off-ramp, settlement, custody and "crypto as a service" technology platforms.

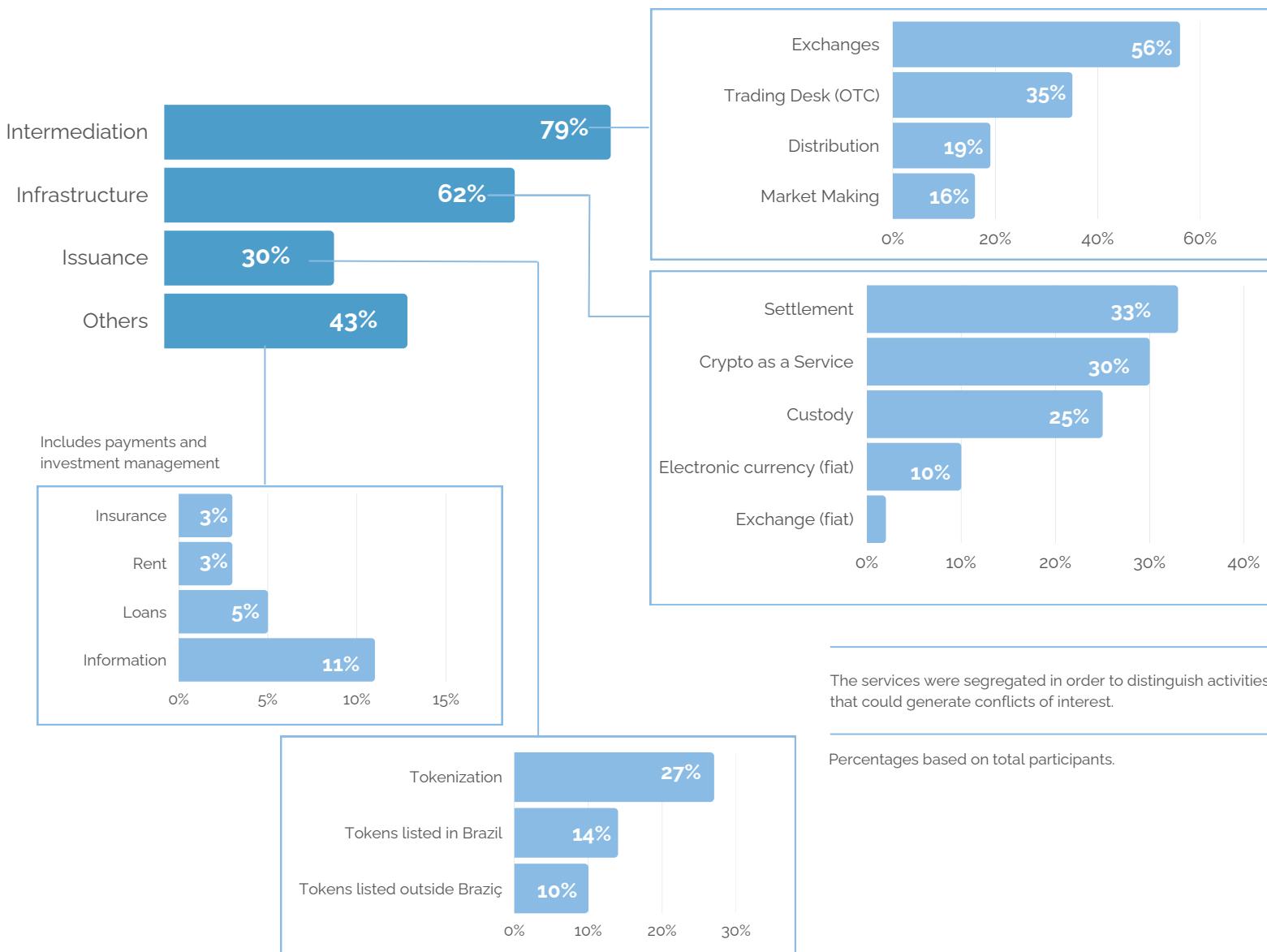
ISSUANCE

Companies that structure tokenization operations and issuers of virtual assets.

OTHERS

Loans, staking, consultancy, media and legal advice.

EXHIBIT 1 Respondent categories, multiple responses



The response options for indicating the available services encompassed various selections. The graphic emphasizes several key findings:

- The prominent role of intermediation services in Brazil, particularly in facilitating negotiation environments.
- The growth and significance of the infrastructure and tokenization services sector.
- The importance of consultancy, media, and regulatory advisory services, which are categorized as "information" services.

The utility of examining service categories becomes more apparent when seen through a time series analysis, as it allows for the identification of patterns and trends in the distribution of services offered, based on the market's evolution and regulatory changes.

INTERMEDIATION

Exchanges have played a prominent role in the cryptoeconomy, mostly driven by the demand for virtual assets for speculative purposes. Various arrangements were devised to facilitate the acquisition and trading of virtual assets, resembling established methods observed in the conventional market.

TRADING

Within this particular classification, we find solutions that provide buyers with the opportunity to locate sellers. This can be achieved through several means, such as a central order book, a liquidity pool similar to decentralized exchanges (DEX), or other brokerage methods that do not entail the trading of one's own assets.

DISTRIBUTION

Distribution involves the process of listing virtual assets in exchanges and/or conducting sales activities, akin to public offerings of securities or other financial assets.

The segregation of distribution activity from tokenization is a choice for highlighting sales activities, dettaching them from the structuring of the token issuance, including the production of tokens and the selection of underlying assets.

This exemplifies the challenge associated with categorization as a result of overlapping activities, although we anticipate that the proposition put forth herein can facilitate the differentiation of distinct risks and contribute to the understading of the intricate nature of the cryptoeconomy from multiple perspectives.

TRADING DESK (OTC)

The facilitation of liquidity for the trading of virtual assets can be accomplished through mechanisms analogous to an over-the-counter market. In this context, specific companies, possessing assets they possess, extend offers to investors, receiving compensation based on the variations in transaction prices that arise from the interplay of supply and demand over different periods.

MARKET MAKING

Market makingactivity is a prevalent practice observed in capital markets, serving as a significant means of enhancing liquidity. This activity bears resemblance to a trading desk that operates with its own portfolio, selling to buyers and buying from sellers at pre-defined levels.

The demarcation between market makingand the trading desk (over-the-counter) becomes blurred when considering the presence of **price arbitrageurs**, who aim to capitalize on temporary disparities in the prices of identical or correlated assets across differente trading venues, or **voluntary market makers**, who participate in the trading of assets without being formally obligated to do so.

Currently, the responsibility lies with the respondents to specify whether their behavior aligns more closely with that of a market maker or a trading desk in the over-the-counter (OTC) market. In further versions of this study, we may consider incorporating the distinct category of arbitrageurs as well.

INFRASTRUCTURE

The promise for innovation in decentralized technologies resides in their capacity to decrease operational expenses, enhance information security, and facilitate interoperability among various systems, reducing the number of intermediaries.

Financial market infrastructure services encompass asset ownership control (bookkeeping), asset safekeeping (custody), operation clearing and settlement, as well as the provision of "white label" platforms.

SETTLEMENT*

Exchanging fiat currency for virtual assets (on-ramp) enable assets to go from traditional financial systems to crypto markets. This step is extremely sensitive for preventing money laundering and terrorist financing, tax evasion and currency evasion.

On the other hand, the exchange of virtual assets for fiat currency (off-ramp) allows the entry of resources back into the traditional financial system, also representing sensitive points for regulatory compliance such as those already indicated, adding to them the concern with taxation capital gains on transactions carried out with these assets.

ELECTRONIC CURRENCY AND EXCHANGE (FIAT)

Some survey participants offer electronic currency issuance services in order to reduce costs in fiat currency transactions or international transactions and allow the segregation of resources through payment accounts. Electronic currency (for Brazilian real) is a concept defined in Law 12,865/2013, corresponding to the digital representation of Brazilian fiat currency in payment accounts. Issuing electronic money is one of the activities that can be carried out by payment institutions authorized by the Brazilian Central Bank.

CUSTODY

An original vision around virtual assets was that "you can be your own bank". In fact, possession of the credentials necessary to move your resources on a shared ledger can be controlled exclusively by a user without the participation of any service provider.

However, in practice, some difficulties in self-custody wallets restricted its usage to more sophisticated users. The general public turns to delegated custody service providers, whether on hardware devices or in wallets maintained on exchanges or specialized providers. Controlling the ownership of virtual assets is a sensitive point for the segregation of investors' and service providers' assets and, ultimately, for the protection of financial stability.

CRYPTO AS A SERVICE

Similar to the manner in which payment fintech companies operate, certain specialized information technology firms provide services to external organizations, enabling them to outsource some operations and processes and focus on relationship with clients, sales and other strategic business aspects. Therefore, the emergence of "as a service" solutions enables agile and scalable models for contracting infrastructure to provide virtual asset services.

* The arbitrariness of a division into categories is also clear here: these operations can be carried out on exchanges, so as to be characterized as mere trading of virtual assets. However, by creating a standalone category, we allow respondents to emphasize this aspect of their activity, as not all exchanges directly offer these services, for example. Ideally, we could include crypto payment gateways in this category, because, in essence, they act as a shared counterparty between payer and recipient. However, due to the way in which the questions were presented and the comments provided in the answers, companies whose activity focuses on payments via crypto were included in the residual category "Others". To adequately reflect this reality, an adjustment will be made in a future version of this report.

ISSUANCE

In this category, we find companies that structure operations and those that issue virtual assets to finance their activities or provide access to their products and services.

TOKENIZATION

Depending on the rights they represent, virtual assets may have intrinsic value or refer to other digital assets as well as physical assets. Tokenization refers to the process of structuring and issuing virtual assets in a distributed ledgers, along with the control and rights associated with those assets.

This service may include drafting contracts, creating guarantees, contracting or providing recordkeeping and custody services, selecting assets, listing them for subscription, collecting funds, processing payments, and controlling ownership of issued assets.

ISSUERS IN BRAZIL AND ABROAD

We defined these subcategories to characterize companies that are direct beneficiaries of the issued virtual assets, which are traded in Brazil or other countries. The information necessary for decision-making involving these virtual assets is directly related to information about the activities of these companies.

OTHERS

This residual category may be subject to expansion in future versions of this report. We include lending and rental services for virtual assets and insurance as subcategories. In the context of cryptoeconomics, mainly due to the operating logic of DeFi platforms, lending (including staking) and rental services take on different contours from intermediation services typical of the capital market, bringing them closer to banking market services.

In capital markets, if individuals rent shares to cover short sale operations, in the crypto market there are other uses for rented virtual assets, which can be deposited on platforms to obtain remuneration or, as collateral for a type of receipts. of deposits of virtual assets – which are, therefore, virtual assets in themselves –, which may have different uses.

Additionally, based on the comments provided by respondents, it was already possible to identify some services that had not been presented as alternatives in the pre-defined list of services presented in the survey.

Among the respondents, we found media companies, law firms and consulting companies, service providers that ultimately offer information to investors and entrepreneurs.

Other services that were reported in this residual category include the management of portfolios that have virtual assets in their composition and payment services. These characteristics are most visible in financial market infrastructure services, and may be regrouped under this category in future versions of this study.

Company Profiles

The numbers presented below reveal that there was adoption by companies that already develop other services that are not directly included in the cryptoeconomy, adding virtual asset services to their businesses.

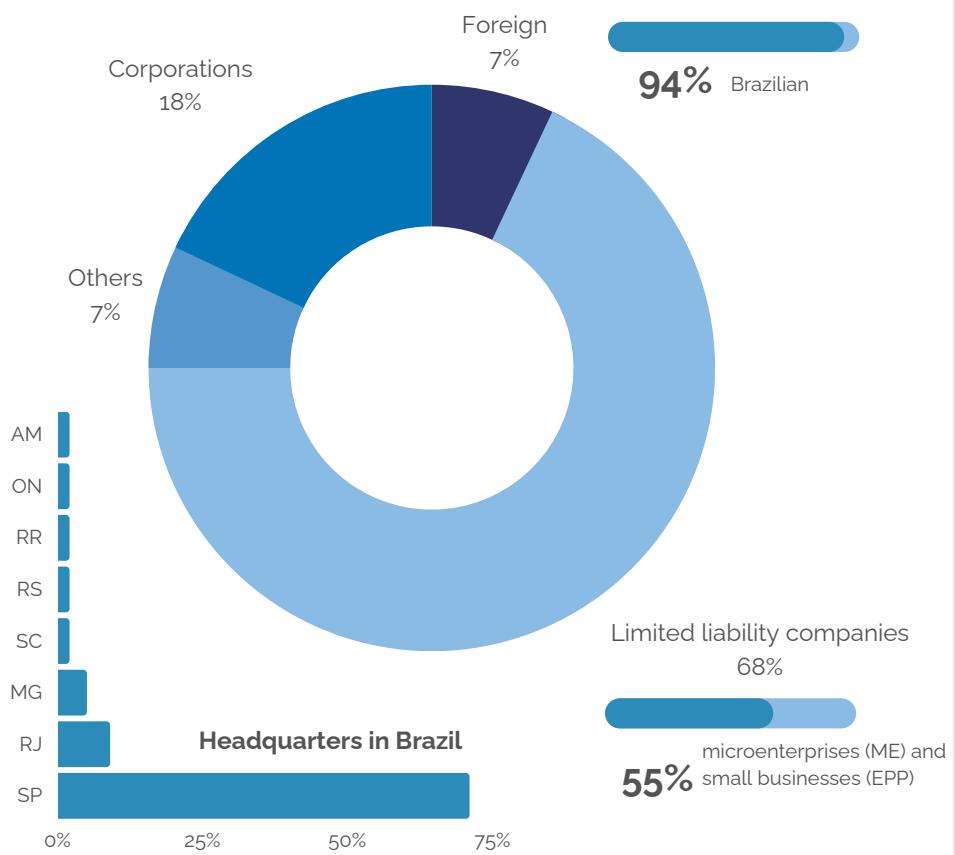
LOCATION

94% of respondents are incorporated in Brazil and 55% declared that they are micro-enterprises or small companies. There is a huge concentration in the State of São Paulo, which accounts for 71% of census participants.

LEGAL FORM

Of the entities incorporated in Brazil, 68% are limited liability companies, 18% are corporations and, among the respondents, we also found some other legal forms.

EXHIBIT 2 Headquarters, corporate type and size of companies participating in the research



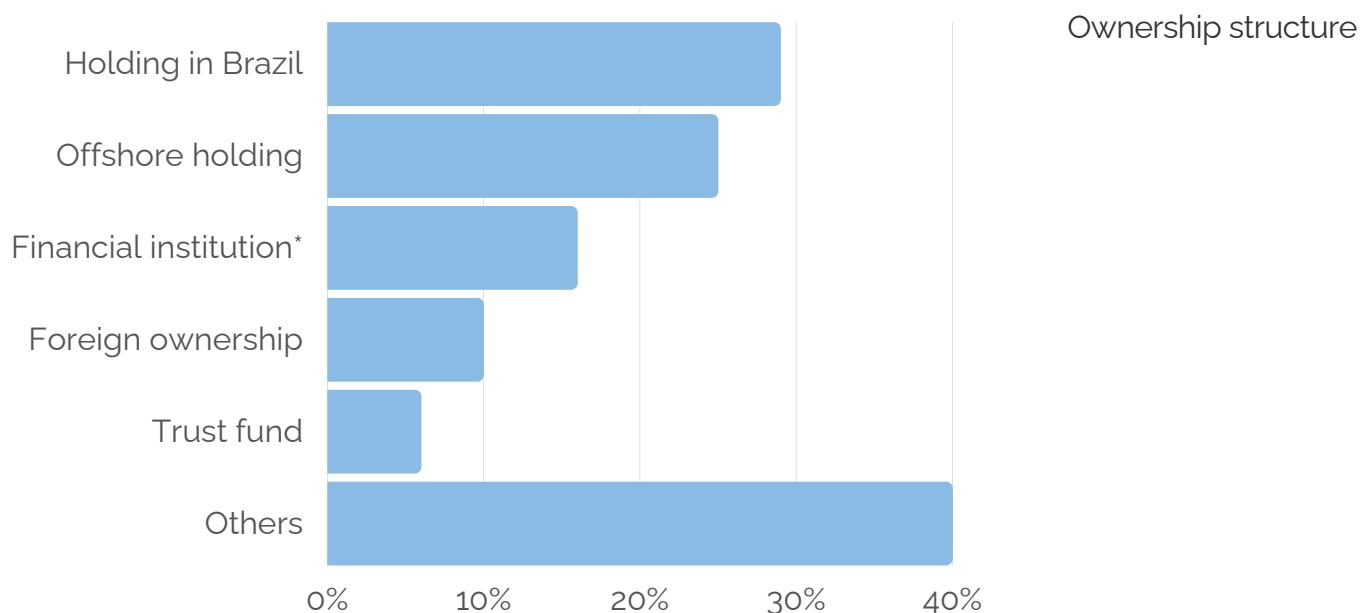
Year of incorporation



40% of respondents were incorporated more than 5 years ago, that is, in 2018 or before. 6% declared that their constitution took place in 2023. 49% of census participants were incorporated during the pandemic period, between 2020 and 2022.

Ownership group includes

EXHIBIT 4



(*) institution authorized as main shareholder or related party.

In order to identify the nationality and structure of the companies' shareholding control, the participants identified whether they are controlled by a holding company in Brazil (29%), an offshore holding (25%) or whether they have, in the control group, institutions authorized by the Central Bank or CVM (16%), foreigners (10%) or investment funds. The research revealed, however, that 40% of companies have simpler ownership structures, with individuals as shareholders.

EXHIBIT 5 Revenue and transaction volume in the last year

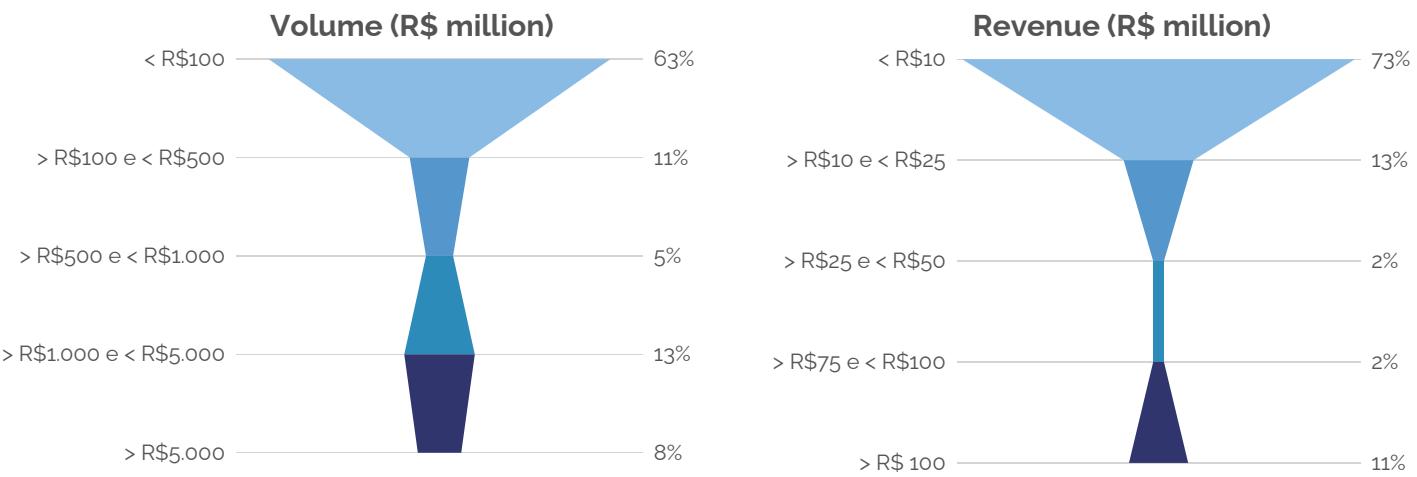
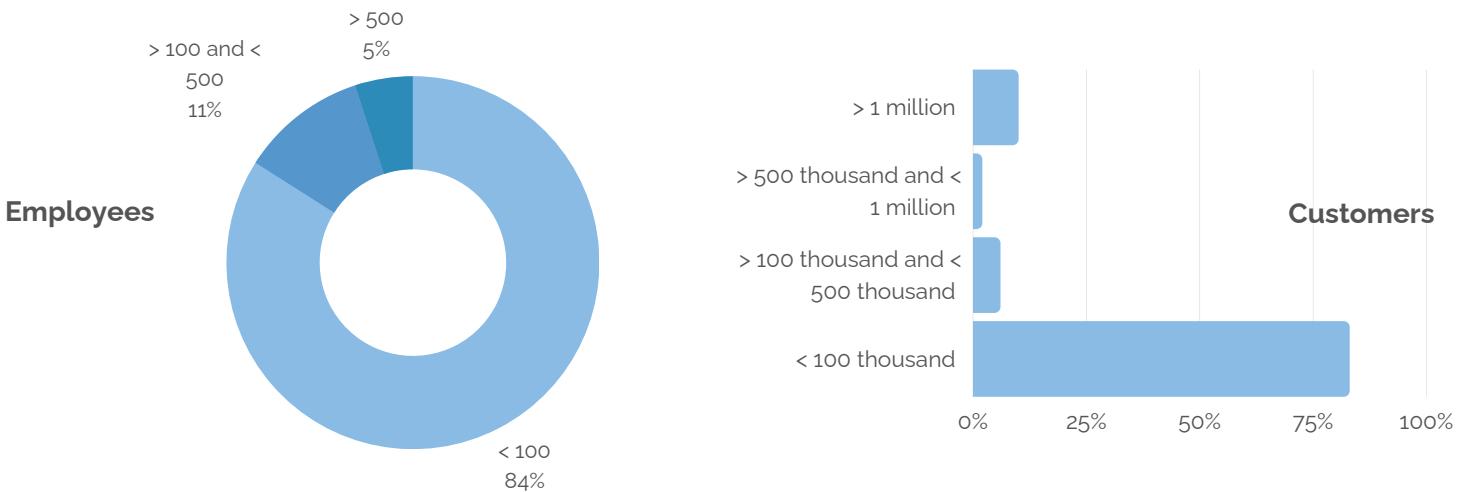


EXHIBIT 6 Number of employees and customers



The participation of public companies shifted the percentage of respondents to the larger categories. We highlight the following tracks:

- 83% have less than 100 thousand customers and 10% more than one million customers
- 84% have less than 100 employees
- 73% earned less than R\$10 million in the last year and 11% over R\$100 million
- 63% processed a financial volume of less than R\$100 million in the last financial year and 8% above R\$5 billion

Non-crypto Activities

Participants indicated the activities and businesses they carry out, whether as main or complementary to activities directly related to the cryptoeconomy. Some of these activities are subject to regulation by the Brazilian Central Bank, CVM and Susep (Brazilian Insurance Authority).

Based on the information provided by participants, we consolidated the different activities associated with those located in the country and, in the list of national economic activity codes (CNAE) used, we found, among the most frequent, general categories associated with the provision of services and intermediation, in addition to activities related to information technology and consultancy.

CNAE	Description
74.90-1-04	Intermediation and agency activities for services and businesses in general, except real estate
66.19-3-99	Other auxiliary activities of financial services not previously specified
70.20-4-00	Business management consultancy activities, except specific technical consultancy
82.11-3-00	Combined office and administrative support services
63.19-4-00	Portals, content providers and other information services on the internet
63.11-9-00	Data processing, application service providers and internet hosting services
62.04-0-00	Consulting in information technology
66.19-3-02	Financial institution correspondents
62.01-5-01	Development of custom computer programs

EXHIBIT 7 Most frequent CNAE of participants

EXHIBIT 8 Authorizations with regulators

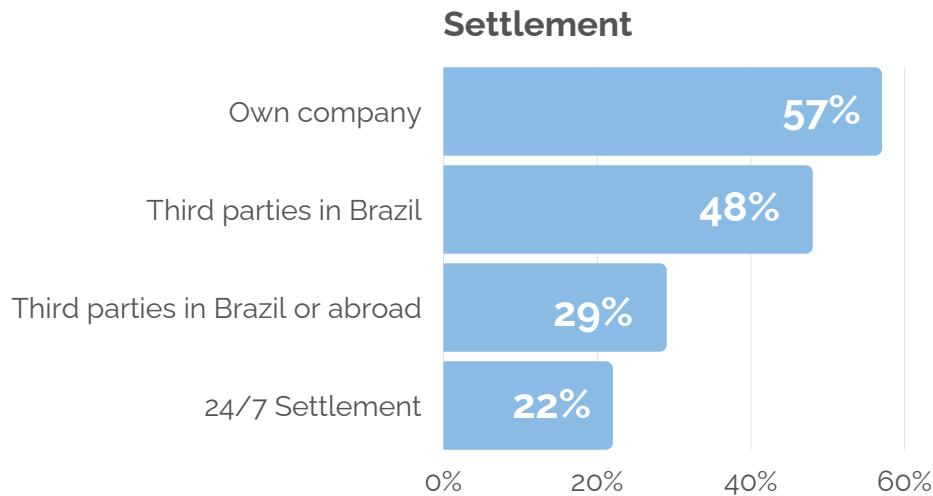
Licenses



Although 68% of respondents do not have any type of authorization from financial market regulators, we identified payment institutions (IP, 14%), direct credit companies (SCD, 2%), resource managers (5%), crowdfunding platforms (6%) and other activities subject to regulation by the CVM (10%) and the Central Bank (6%).

EXHIBIT 9

Settlement methods



Participants indicated, with the possibility of selecting multiple alternatives, that they liquidate their own operations (57%), or do so through third parties in Brazil (48%) or in Brazil and abroad (29%). Furthermore, 22% responded that they settle their operations in a 24x7 model.

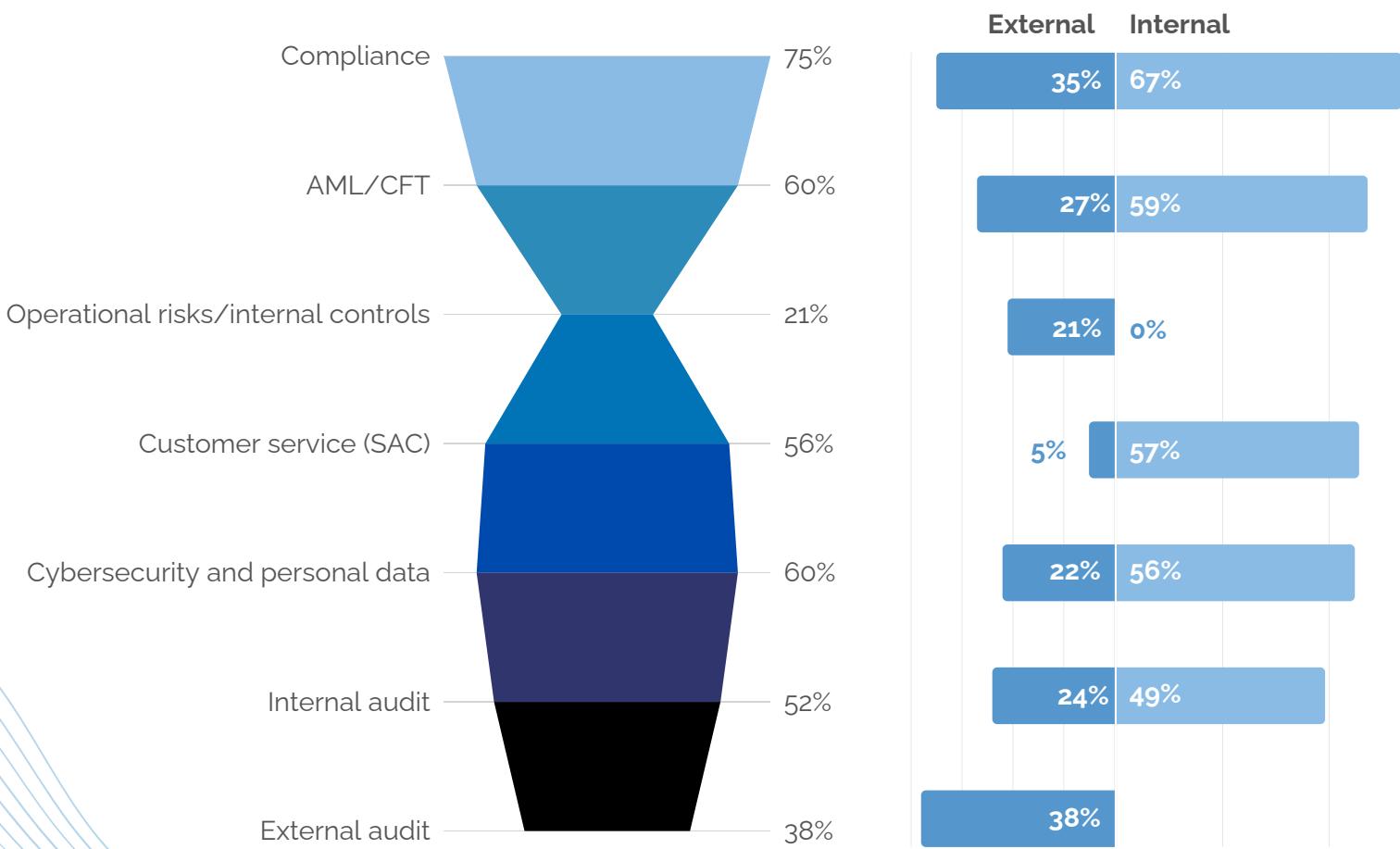
Compliance

ABCrypto has always been committed to integrity in offering products and services in the cryptoeconomy, proposing a Code of Ethics and Self-Regulation for its members. Therefore, this report includes a survey of the controls and risk management mechanisms for crypto companies in Brazil.



All respondents indicated that they have some type of control, with only 5% indicating that they only have a customer service (SAC) and no other compliance structure.

EXHIBIT 10 Compliance mechanisms



AML/CFT: anti-money laundering and counter-financing of terrorism and the proliferation of weapons of mass destruction.

COMPLIANCE HIGHLIGHTS

In the survey, participants also indicated whether its compliance structure is internal or whether third parties are hired to do so.

It is worth highlighting the existence of internal AML/CFT structures (59%) and cybersecurity and personal data protection (56%).

The responses indicated some difficulty in understanding the different dimensions of the term "compliance", which is why participants preferred to indicate that they have some type of compliance – internal (67%) or external or both (35%) instead of detailing whether they have controls specific to preventing money laundering and terrorist financing (AML/CFT), internal controls, risk management systems, cybersecurity and personal data protection and internal and external auditing. In this context, the option to indicate whether there is a customer service (SAC) was also included.

Self Regulation

ABCRITO AND SELF-REGULATION

The Code of Conduct and Self-Regulation is a set of rules that contribute to the organization and standardization of best practices and anti-money laundering measures among companies in the cryptoeconomy.

Self-regulation is a commitment by companies associated with ABCripto on topics such as ethics, solidity and integrity. This set of rules will help organize the governance of the sector, as well as monitor the adoption of good practices by brokers and, most importantly, will help to avoid market abuse.

Find out more at abcripto.com.br/autorregulacao/



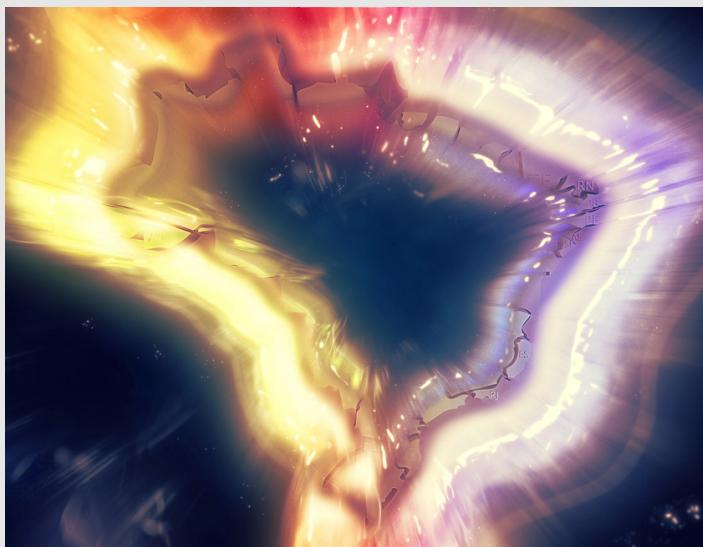
The future

In addition to an improvement in the categories of virtual asset services, future iterations of this report may include answers that reflect the expectations of those who participate in the cryptoeconomy and even the regulators themselves.

As innovation and regulation advance, a dialogue between market participants and the government will permit the co-creation of solutions that do not impose disproportionate burdens on businesses while ensuring adequate levels of protection for investors and the National Financial System.

With this report, we aim to increase the public's understanding of cryptoeconomics and invite students, teachers, and researchers to investigate the sector's opportunities and challenges.

Thanks!



Glossary

A

- **asset-backed token:** a digital token that represents ownership of a physical or tangible asset.

B

- **bitcoin:** first decentralized cryptocurrency, created in 2009.
- **blockchain:** distributed record of transactions whose writing and validation rules are previously defined in a protocol and in which data is stored in chains linked by mathematical codes that ensure its integrity over time.

C

- **central bank digital currency (CBDC):** digital representation of fiat currency issued by a central bank, which adds functionality to electronic currency.
- **central order book:** mechanism for consolidating buy and sell orders to facilitate the execution of trades according to prices defined by traders and according to the different types of existing orders.
- **centralized exchange (CEX):** exchange in which there is a central intermediary to consolidate orders and settle trades.
- **compliance:** mechanisms that seek to ensure that company processes comply with applicable rules and regulations.
- **crowdfunding:** collective investment to finance projects on electronic platforms that, in Brazil, are regulated by Resolution CVM 88/2021.
- **crypto as a service:** offering technology services to companies that wish to operate in the cryptoeconomy.
- **cryptoasset (crypto-asset):** digitally represented asset, which must have at least the following characteristics: (a) its existence, integrity and ownership are protected by cryptography; and (b) your transactions are executed and stored using distributed ledger technology.
- **cryptography:** techniques to guarantee communication in the presence of adversaries, preserving the confidentiality and integrity of data and the authenticity of the parties.
- **cryptocurrency (cryptocurrency):** virtual asset whose main purpose is to pay for transactions recorded on the blockchain.
- **custody:** asset storage and safekeeping service.

D

- **decentralized exchange (DEX):** trading platform in which users trade assets directly with each other without the necessary presence of a central intermediary to custody assets or consolidate orders.
- **decentralized finance (decentralized finance, DeFi):** financial systems and services that operate without traditional intermediaries.
- **distributed ledger:** a ledger replicated across multiple participants in a network.

E

- **Ethereum:** pioneering protocol supporting smart contracts. See also: smart contract.
- **exchange:** virtual asset trading environment.
- **electronic currency:** digital representation of fiat currency, under the terms of Law 12.86/2013.

- **fiat money:** currency issued by a central bank.
- **financial market infrastructure:** systems that facilitate the bookkeeping, custody, clearing, settlement or registration of assets.

F

H

- **hash:** an efficient, non-invertible mathematical function that converts input data into a fixed-length sequence of characters.

- **liquidity:** ease with which an asset can be quickly bought or sold.
- **ledger:** record of financial transactions. See also: blockchain.
- **limit order:** command to buy or sell an asset at a specific price or better.
- **liquidity pool:** virtual assets locked in a smart contract used to facilitate trading, providing liquidity to those who wish to trade these assets.

L

M

- **market making:** continuous provision of liquidity for those who wish to trade a certain asset, within pre-established parameters in an order book.
- **market order:** command to buy or sell an asset immediately at the best available price.

- **Non-fungible token (NFT):** unique digital record that represents ownership of a specific item or individually identifiable content.

N

O

- **off-ramp:** a way to convert cryptocurrency to fiat money.
- **on-ramp:** a way to convert fiat money to cryptocurrency.
- **order:** command to buy or sell an asset.
- **OTC desk:** trading through intermediaries who use their own portfolio to meet buy and sell requests from investors. See also: over-the-counter, OTC.
- **over-the-counter (OTC):** market where asset trading takes place without the necessary creation of a central order book or electronic trading environment, allowing certain agents (dealers) to use their own portfolio of assets to meet their needs. purchase and sale orders.



- **peer-to-peer (P2P):** transaction model that involves direct interaction between users of a network, without an intermediary.

P

S

- **security:** under the terms of Law 6,385/1976, securities or collective investment contracts offered publicly that generate expectations of economic benefit arising from the actions of an entrepreneur or third party.
- **security token:** digital security whose economic essence meets the legal definition of security.
- smart contract:
- **self-custody wallet:** Tool that allows users to store and manage their own virtual assets without depending on third parties.
- **settlement:** delivery of assets against payment for the transaction.
- **smart contract:** self-executing codes whose instructions are stored in a distributed register and whose execution integrity is guaranteed by transaction validation mechanisms, according to the rules of the protocol used.
- **staking:** deposit of virtual assets into a system that pays remuneration resulting from the use of these assets for various purposes on decentralized finance platforms.

- **token:** a digital representation of value or property.
- **tokenization:** process of converting goods and rights in an asset into a digital token.

T

U

- **utility token:** digital security used to access a specific product or service.

- **virtual asset:** digital representation of value that can be negotiated or transferred by electronic means and used to make payments or for investment purposes - defined in Law 14,478/2022.

V

W

- **wallet:** digital tool for storing, sending and receiving virtual assets.
- **web3:** the future of the internet, with relationships mediated by decentralized technologies and democratization of value to network users.

The background features a complex, abstract pattern of thin, wavy lines in shades of blue, purple, and pink. These lines form a dense, organic network that resembles a brain's neural pathways or a microscopic view of cellular structures. A prominent feature is a large, roughly triangular area in the center-right where the lines converge and form a fine, crisscrossing grid.

ab cripto*