An introduction to cryptoasset compliance for commercial banks

Elisabete Botinas

Novo Banco - May 21st, 2021



"To revenge crime is important, but to prevent it is more so."

0. Who we are and what is Instituto New Economy?

Clear, independent thinking for the new digital economy

Collaborative association

Defending new technology as a public good

Clear, independent thinking for the new digital economy

Collaborative association

Industry leaders, professionals and citizens who wish to increase Portugal's global standing and its participation in the digital economy.

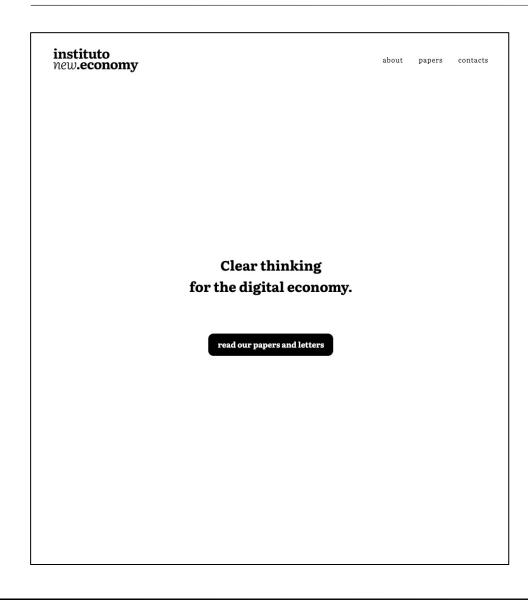
 We believe Portugal is at a crossroads in history where blockchain technology and cryptoassets are radically impacting our competitiveness in the global economy.

Defending new technology as a public good

 We host educational events, publish research papers and form committees for best practices and ethical considerations for new and emerging technologies.

 We aim to promote a balance between risk-based supervision and innovation, without stifling emergent technologies that are at the forefront of the new economy.

Get in touch with us through our website



https://neweconomy.institute

info@neweconomy.institute

Executive summary

1. Some context about my experience in traditional financial institutions and crypto fintech

1. From branch manager to chief compliance officer

2. How can banks protect themselves when dealing with cryptoassets, directly and indirectly

- 1. Defining cryptoassets according to regulation
- 2. Cryptoassets and the traditional financial system
- 3. How can banks safely deal with cryptoassets

3. An overview of the KYC & AML processes used by the top exchanges and compliance software tools

- 1. Coinbase, Kraken, Bitstamp & Gemini
- 2. Elliptic
- 3. Chainalysis
- 4. TRM Labs
- 5. CipherTrace

1. Some context about my professional experience

The first eight years of my career revolved around operations and business development for traditional banks

Branch Management & Operations

Corporate Accounts & Trade Finance







After that, I've dedicated the last ten years to all things compliance

Compliance Management

Chief Compliance Officer

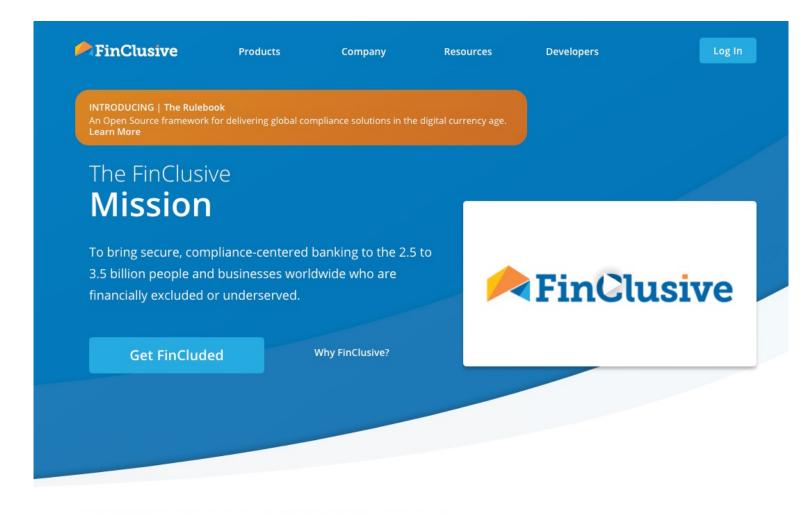




I've joined Uphold in 2014 to help the fully reserved, multi-asset platform implement its compliance programs and best practices



In 2021, I've joined FinClusive, also as Chief Compliance Officer, to help develop our Compliance as a Service offering



Shepherding a modern, secure financial ecosystem

2. How can banks protect themselves from cryptoassets

2.1. Key definitions for today

Before we begin, let's define what we're talking about, noting these terms are fairly interchangeable

Cryptoassets

Virtual Assets

 "Cryptoassets are a type of digital asset that depends primarily on cryptography and distributed ledger or similar technology (e.g. blockchain) as part of their perceived or inherent value". "A virtual asset is a digital representation of value that can be digitally traded, or transferred, and can be used for payment or investment purposes".

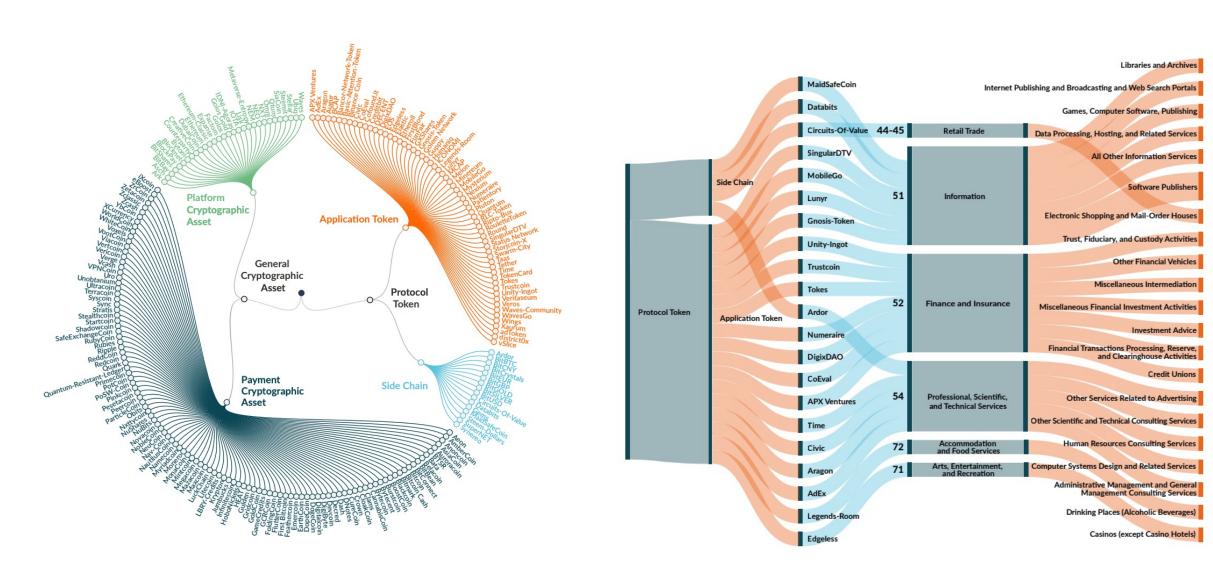
 "Virtual assets do not include digital representations of fiat currencies, securities and other financial assets that are already covered elsewhere by FATF".

Note: Some key institutions, such as the Financial Stability Board and Bank for International Settlements, use cryptoassets, whereas others, such as FATF and Banco de Portugal, use virtual assets. Cryptoasset is a superior definition, as many virtual assets (e.g. in-game currencies) aren't related to the topic at hand, but they mostly overlap.

From a theoretical perspective, cryptoassets started as consumable/transformable assets, but are now its own superclass

	Capital Assets	Consumable/ Transformable Assets	Store of Value Assets	Cryptographic Assets
	Provide ongoing source of value, and can be priced on the basis of the net present value of its expected returns.	Raw material/building blocks that serve as inputs into finished products. It has economic value but does not yield an ongoing stream of value.	Cannot be consumed, nor can it generate income. Nevertheless, it has value as it is a store of value asset.	Can function simultaneously as Capital, Consumable/ Transformable, and Store of Value Assets thanks to their permission-less, distributed, and cryptographically secure nature.
Equities	х			
Bonds	X			
Income Producing Real Estate	X			
Commodities		X		
Precious Metals		X	X	
Currency			X	
Fine Art			X	
Payment Crypto Assets	X	X	X	X
Platform Crypto Assets	X	X	X	X
Side Chains	Х	X		X
Application Tokens	X	X		X

The taxonomy isn't ever-evolving, but it shows the diversity of applications and use-cases stemming from cryptoasset innovation



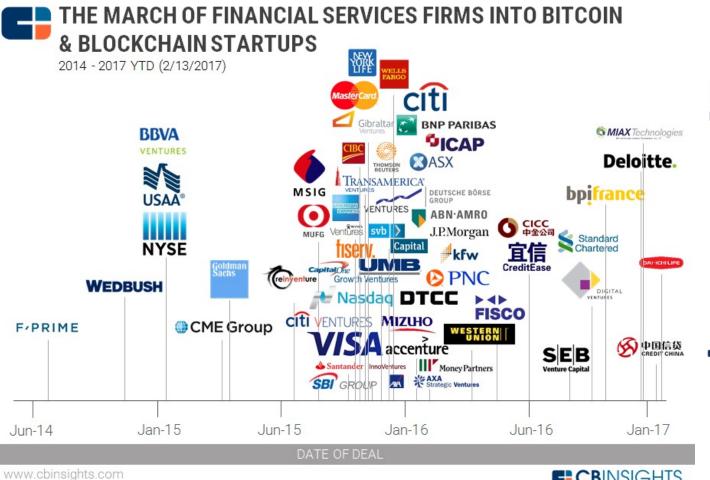
Crypotassets are overwhelming, but they are also also the present and the future of finance

"Cryptocurrency economists" need a broad range of skills

Back in 1924, John Maynard Keynes postulated that a "master-economist must possess a rare combination of gifts. He must be mathematician, historian, statesman, philosopher – to some degree." Numerous economists feel that this description is still valid today. And potentially disruptive technologies, from digitalisation to biotechnology, will simply add to the list of requirements, as economists will need to understand just what is innovative about the new procedures. Keynes's list of requirements is certainly not sufficient to really understand bitcoin. An excellent cryptocurrency economist must have a software background in order to read and understand the bitcoin code. This is necessary, as the code contains the relevant rules, the so-called bitcoin protocol. They must be hardware experts in order to understand the global, decentralised network and the mining process. And they should have an understanding of blockchain technology in order to understand the link between bitcoin transactions and the mining process. That is why traditional economists are finding it difficult to get a grasp on the bitcoin phenomenon. Their forecasts about the future development of bitcoin are often based on traditional, historical patterns. The mantra "this time is different" has always turned out to be wrong in financial market history – just remember the financial crisis of the past decade.



Over the past few years, all kinds of financial institutions have forayed into the cryptoasset world, mostly by investing in startups



Banks have been looking at blockchain for years

Equity investments and current consortia involvement. Q1'12 - Q1'18



CBINSIGHTS Note: Goldman Sachs and JPMorgan Chase have left the R3 consortium

CBINSIGHTS

More recently, major public companies and international watchdogs started to actively engage with cryptoassets

Financial Companies Offering Bitcoin Services



Fidelity Digital Asset Services LLC has offered crypto custody and trading services to institutional investors since October 2018.

BlackRock.

In a January 2021 SEC filing, BlackRock announced that it was adding bitcoin futures as an eligible investment to two of its funds.



MasterCard has said that it will allow cryptocurrency transactions to take place on its network starting at some point in 2021.

Morgan Stanley

Morgan Stanley will soon offer its wealth management clients access to three funds that will enable them to own Bitcoin.

> BNY MELLON

In February 2021, America's oldest bank said that they will begin providing financial services for Bitcoin and other digital assets.

Select Companies Adding Bitcoin to their Balance Sheets

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In February 2021, Tesla disclosed that it had bought \$1.5 billion worth of Bitcoin (equating to 10% of the company's cash reserves). CEO Elon Musk also said the automobile manufacturer would start accepting Bitcoin as payment on a limited basis.



The financial payments company, run by Twitter founder Jack Dorsey, bought a combined \$50 million worth of Bitcoin in the fourth-quarter of 2020 and added an additional \$170 million worth of Bitcoin to its balance sheet in February 2021.

MicroStrategy

The Virginia-based software company holds roughly \$4.5 billion worth of Bitcoin from an initial purchase price of \$2.1 billion. CEO Michael Saylor remains bullish on Bitcoin with MicroStrategy making an additional \$10 million investment in March 2021.

U.S. and International Bodies Overseeing the Use of Cryptocurrencies

United States

Since 2015, the Commodity

Throughout his tenure as



The Office of the Comptroller of the Currency is responsible for issuing charters and oversight to America's national banks. In January 2021, the OCC granted a charter to the first federally chartered digital asset bank, Anchorage Digital Bank.

International

FinCEN (



The Financial Crimes Enforcement Network (FinCEN) has long held that Bank Secrecy Act regulations related to money transmission apply to convertible virtual currencies. It has issued various pieces of guidance and advisories related to cryptocurrency over the last decade.

CFTC

security.



Futures Trading Commission has classified Bitcoin as a commodity. Chairman of the CFTC Heath Tarbert said that there was no reason to reclassify Bitcoin as a

FATF

The Financial Action Task Force (FATF) is the global money laundering and terrorist financing standard setting body. FATF has developed recommendations and standards related to cryptocurrencies, many of which are adopted by countries around the world.

As the market matures and regulators catch-up, more and more players are joining the space as "virtual asset service providers"

FINANCE

Bitcoin is coming to hundreds of U.S. banks this year, says crypto custody firm NYDIG

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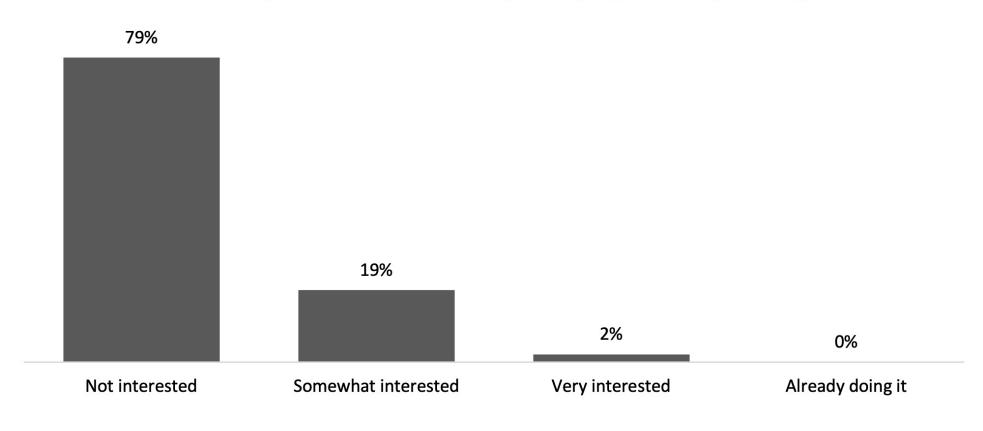
KEY POINTS

- For the first time, customers of some U.S. banks will soon be able to buy, hold and sell bitcoin through their existing accounts, according to crypto custody firm NYDIG.
- Banks are asking for bitcoin because they can see their customers sending dollars to Coinbase and other crypto exchanges, according to Yan Zhao, president of NYDIG.
- After rolling out the initial bitcoin product, NYDIG plans on other services, including debit card rewards paid in bitcoin and a new type of bank account that is FDIC insured, but pays interest in bitcoin, he said.



Even if recently most of these banks claimed they weren't interested in offering crypto investing services

How interested is your financial institution in providing cryptocurrency investing services?



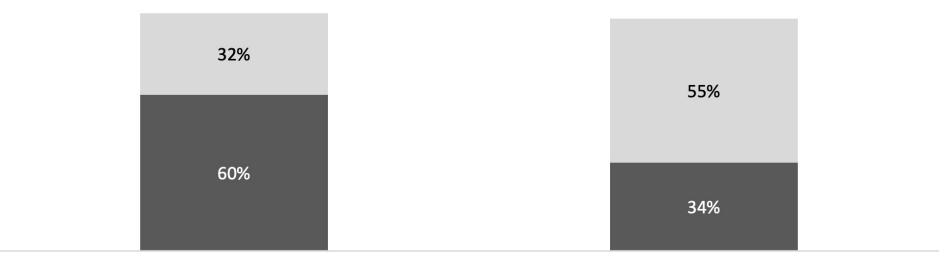
CORNERSTONE

Source: Cornerstone Advisors survey of 260 financial services senior executives, December 2020

@rshevlin

This change of mind is tied up to the fact customers still show large interest in this new, exciting asset class

If your bank gave you the ability to invest in cryptocurrencies, how likely would you be to use it?



Consumers who currently own cryptocurrency

Consumers who plan to invest in cryptocurrency in 2021

■ Definitely would use it ■ Might use it



Source: Cornerstone Advisors survey of 3,898 US consumers, December 2020

@rshevlin



Banks can deal with cryptoassets in two more or less direct ways: 1) by accepting customers who deal with cryptoassets in other venues

Being friendly with business customers which operate with cryptoassets

NatWest will refuse to serve business customers who accept cryptocurrencies

Head of the lender's risk committee categorised cryptocurrencies as 'high risk'



▲ NatWest's position could mean turning away major clients who have recently announced plans to accept cryptocurrency payments alongside debit, credit cards and cash. Photograph: Matt Crossick/PA

NatWest will refuse to serve business customers who accept payment in cryptocurrencies such as bitcoin, which the UK lender has categorised as "high risk".

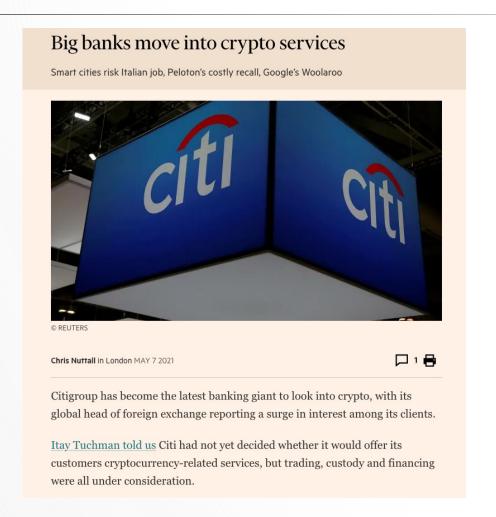
Being friendly with customers who interact with cryptoasset exchanges



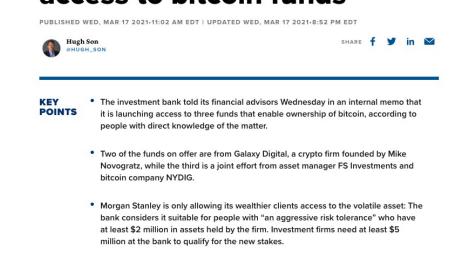
Or 2) simply by directly offering cryptoasset-related services to their customers, e.g. trading, custody, and wealth management

Offering trading and custody services

Offering wealth management services



Morgan Stanley becomes the first big U.S. bank to offer its wealthy clients access to bitcoin funds



In brief, banks only interact with cryptoassets directly if they provide "virtual asset services" or if their customers deal with cryptoassets

E.g. directly dealing with cryptoassets through investment or mining

Digital Asset **Entity**

Blockchain Project Hedge Fund Family Office

VASP

Crypto Exchange Non-custodial DEX OTC Desk Bitcoin ATM P2P Exchange Custody Provider

Digital Asset Customer

Wallet

Miner

Gambling

Bank Customer

Otherwise they just share the same customer base

Note: VASP stands for Virtual Service Provider

Under Portuguese regulation, only by performing any of the following activities on behalf of a client is an entity considered a VASP

VASPs are now considered obliged entities

- Exchange between virtual assets and fiat currencies;
- ii. Exchange between one or more forms of virtual assets;
- iii. Transfer of virtual assets;
- iv. Safekeeping and/or administration of virtual assets or instruments enabling control over virtual assets;

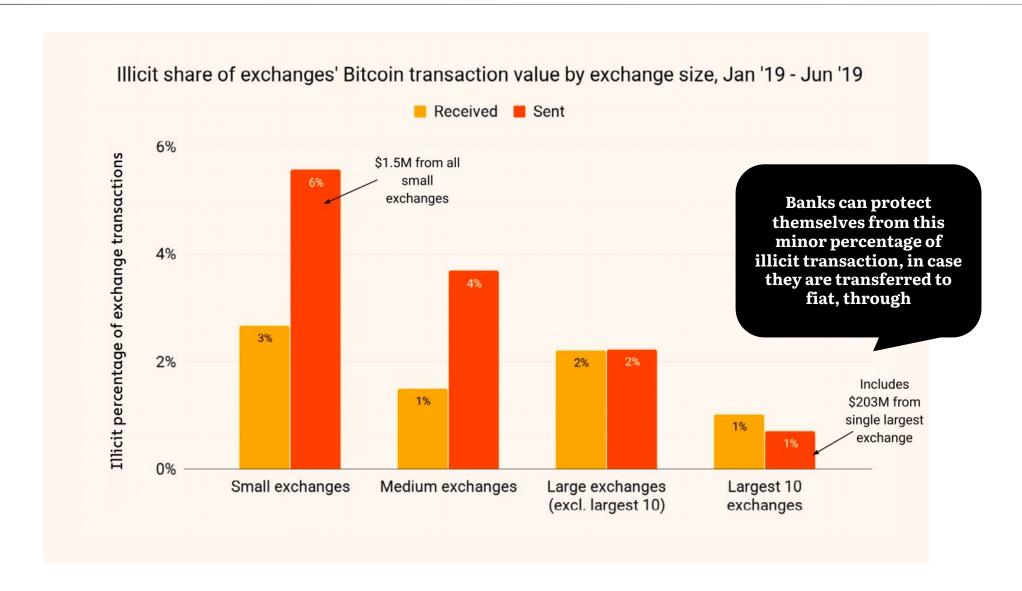
Note: VASP stands for Virtual Service Provider

Note VASPs are required to have stringent KYC and CTF procedures, and the most well-reputed VASPs are under intense scrutiny here

EXHIBIT 4 | Solutions for Cryptocurrency Due Diligence **Know your transaction** (KYT) services Track origins of transactions using blockchain technologies Remove much of the concern about dark money and laundering Due **Structured regulatory** Innovation of compliance (SRC) practices custodian services diligence by banks Manage the diverse array of Monitor and protect regulators and authorities across cryptocurrency assets for customers and banks many regions • Provide a common diagnostic Create opportunities for and priorities so that banks can bank revenues and improved have uniform risk policies customer service

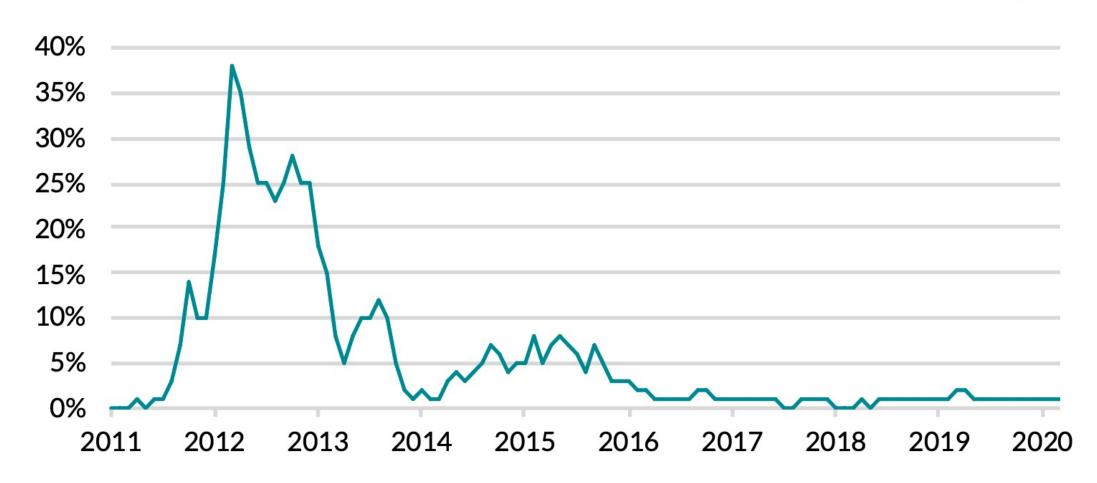
Source: BCG analysis.

The high level of compliance controls among the largest crypto exchanges discourages illicit users from transacting through them

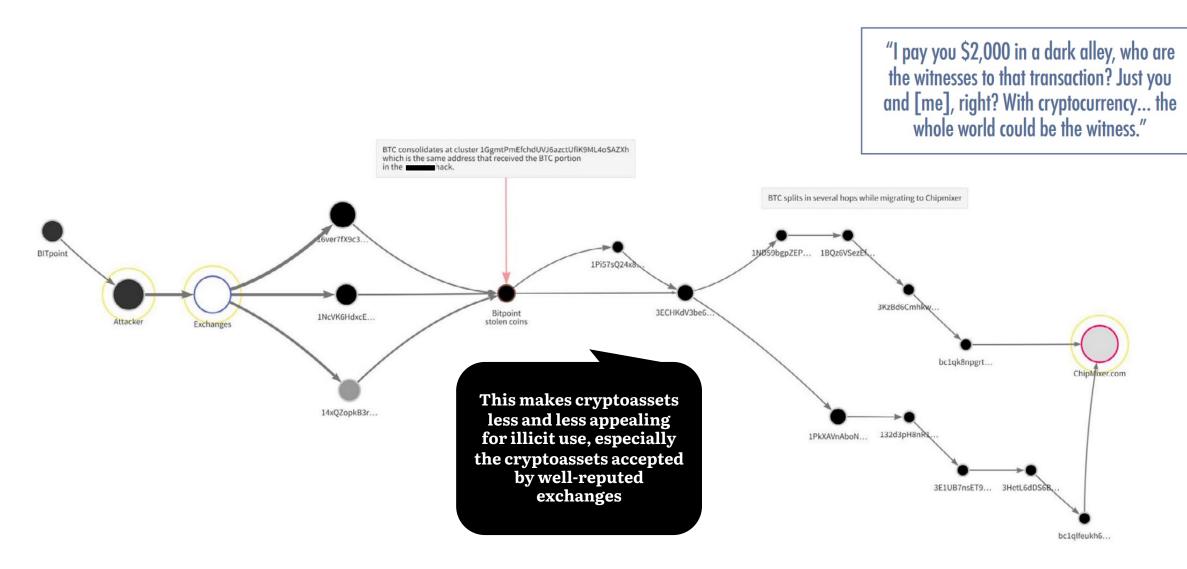


Moreover, the transparent nature of most blockchains has diminished the appeal for illicit use of the top cryptoassets

Proportion of all Bitcoin Transactions Linked to Criminality



That's because it's possible to investigate transactions at an individual level, which hinders its illicit use potential



This means fiat-to-fiat SEPA and SWIFT wire transfers between banks and regulated exchanges in low-risk jurisdictions are fine

As long as those transfers happen between legally-allowed citizens and exchanges

Or between legal, regulated entities (e.g. crypto startups*) and exchanges

For example, even though Revolut allowed its customers to buy bitcoin contracts on its app, it used to blocked transfers to exchanges

The most crypto-friendly banks



Until April 2021, Revolut shouldn't be part of this crypto-friendly list.

Re: Revolut-Etana-Kraken





#2

instituto Source: Aximetria, 2020

But it's now working with major exchanges, and even allows crypto deposits and withdrawals - following a partnership with Elliptic

Bitstamp



Revolut adopts Elliptic's crypto compliance software



Source: Revolut















customers, has announced today that they have integrated with Elliptic, the global leader in cryptoasset risk management and

blockchain analytics.

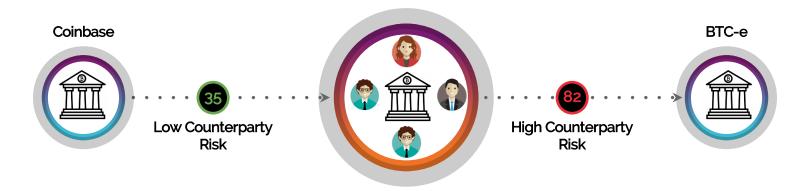
This partnership lets Revolut broaden its cryptocurrency offering. Revolut Metal customers in the UK are now able to withdraw cryptocurrency and their transactions are recorded on the blockchain, for the first time. They have been able to hold cryptoassets since 2018 and this launch means Revolut's customers are able to spend their cryptocurrency, send it to personal wallets, or transfer it to other services such as exchanges.





Elliptic provides compliance solutions for cryptoasset risk management. It's backed by Wells Fargo and Santander Innoventures

Not all crypto exchanges and businesses are alike. Take a nuanced, risk-based approach to better manage risk exposure to 250+ Virtual Asset Service Providers (VASPs).





For Financial Institutions: VASP Due Diligence

Many financial institutions are looking to engage with cryptoasset businesses. Elliptic Discovery provides the rapid insights needed to perform due diligence and onboard VASPs with confidence.



For Banks: Indirect Exposure

Every bank is exposed to cryptoassets when its customers transact with VASPs. Identify and assess the level of risk, and ensure you aren't handling the proceeds of crime or violating sanctions.



For Crypto Businesses: VASP Risk Assessment

Transacting with crypto businesses that have inadequate compliance controls can expose you to significant risk. Get the insights you need to assess this risk and transact with confidence.



For Regulators: VASP Risk Monitoring

Elliptic Discovery provides up-to-date risk profiles for all major VASPs, so regulators can monitor anti-money laundering, terrorist financing (AML/CFT), and sanctions compliance for these businesses.

In the end, it's all about capturing an opportunity with a risk-based compliance to address relevant regulations

• Utilise state-of-the-art tools to screen the reputation of exchanges under consideration

Use blockchain forensics tools to identify scammers and illicit schemes using bank accounts

Serve crypto businesses which have successfully registered with Banco de Portugal

Don't allow customers to buy cryptoassets with a credit card nor pre-paid cards

3. An overview of key KYC & AML processes

These exchanges stand as the most reputable fiat gateways in Europe and USA

	Headquarters	EU Licenses	Identity Verification	Compliance Software
Coinbase	Formerly San Francisco, going fully remote	UK and Ireland	Required, done by Jumio	Coinbase Analytics
Kraken	San Francisco	UK	Required and tailored to countries	Chainalysis
Bitstamp	London, founded in Slovenia	Luxembourg	Required, done by Onfido	Elliptic
Gemini	New York	UK and Ireland	Required, done in- house	ComplyAdvantage AML

Elliptic Discovery is our recommended tool

Built on Elliptic's unparalleled data, collected over the past six years, Elliptic Discovery offers a broad range of identifiers and risk indicators which allow banks to identify and assess the risk posed by their exposure to crypto-assets through these exchanges. This includes information about these business' corporate entities, jurisdiction, regulatory status, compliance policies as well as blockchain insights into the provenance of crypto-assets that they have handled.



Identify Exposure to Crypto-Assets

- Quickly identify customers that transact with crypto-asset exchanges.
- Understand if you are banking crypto-asset businesses.
- Harness multiple unique identifiers covering hundreds of crypto-asset exchanges.

Assess the Risk Posed by Customers' Crypto-Asset Dealings

- Gain blockchain insights has the exchange transacted with illicit or sanctioned entities?
- Learn which crypto-assets are supported by the exchange.
- Determine if the exchange is implementing a robust AML/CFT/sanctions policy.
- Know the regulatory status of the exchange.

Meet Regulatory Obligations

- Demonstrate to regulators that your bank's exposure to crypto-assets is well understood.
- Ensure that your customers' dealings with cryptoassets do not pose sanctions risks.

Exploit the Opportunities

- Safely engage with crypto-asset exchanges.
- Discover crypto-asset businesses to expand your customer base, prioritizing those that meet your risk appetite.
- Relax restrictive policies towards crypto-assets and allow your customers to engage with them.

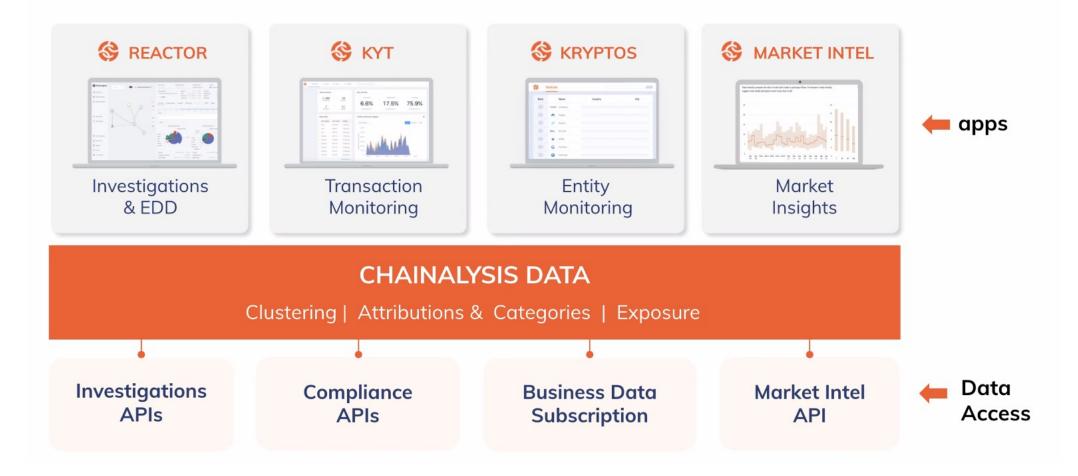
Harness the Most Accurate and Comprehensive Dataset Available

- Unparallelled coverage of crypto activity since 2013.
- Robust data validation methodologies ensures accuracy.
- Purpose-built for financial institutions.

Source: Elliptic instituto new.economy 41

But Chainalysis Kryptos is also suitable, it will be a matter of price

The Chainalysis Portfolio



We see Chainalysis Kryptos as analogous to Elliptic Discovery

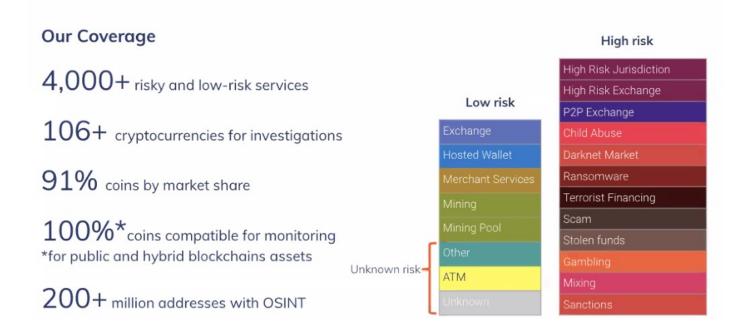
AML and fraud detection software

Make informed decisions about who to do business with using the industry's best data. Understand which exchanges are leading the way in compliance and which services are most associated with high-risk activity.

Know your exposure

Retail banking customers are already engaging with cryptocurrency via wire transfers and credit cards. Use Chainalysis to understand your exposure and filter legitimate purchases from suspicious activity.

Intelligence to engage with confidence



Source: Chainalysis instituto
new.economy 43

And, overall, Chainalysis and Elliptic are the most reputable players in the compliance field

Bringing Compliance to Crypto

Cryptoassets present your financial institution with new opportunities and emerging risks. Each requires crypto compliance solutions to manage risk.



Launch Compliant Crypto Services

Capture the demand for crypto services while complying with AML/CFT regulations. Rely on Elliptic for compliance whether offering crypto custody or exchange services.

Read More



Manage Cryptoasset Exposure

You're exposed to cryptoassets whenever a customer transacts with a Virtual Asset Service Provider (VASP). Identify and assess risk to avoid handling proceeds of crime or violating sanctions.

Read More



VASP Due Diligence

Elliptic Discovery and Enhanced Due Diligence Reports provide the blockchain-based insights you need to engage with VASPs with confidence.

Read More

CipherTrace Armada could also be a good option but we haven't engaged properly yet

CipherTrace Armada™ Provides Critical Visibility for Banks to Reduce Risks and:

- Monitor payments to and from over 850 VASPs
- Onboard and manage VASP customer risks
- Detect more than 3,700 digital asset customers
- Adopt a risk-based approach to virtual currency AML
- Implement policies based on VASP KYC deficiencies and money laundering risk

CipherTrace cryptocurrency intelligence delivers the highest quality competitive advantage on two critical dimensions superior data and advanced analytics.

CipherTrace anti-money laundering analysts collect and collate hundreds of millions of blockchain data points to produce the most extensive attribution data on over 800 cryptocurrencies. This attribution data is continuously processed by advanced analytics to de-anonymize legitimate, higher-risk and illicit businesses. CipherTrace blockchain analytics then accurately traces crypto flowing through exchanges, bitcoin ATMs, peer-to-peer services, money laundering services, dark markets, and ransomware.



TRM is also an emergent player in area, but we're to demo their platform



Investigations

Trace the flow of funds and link suspicious activity to real-world entities



Transaction Monitoring

Automated and risk-based transaction monitoring for crypto assets



Wallet Screening

Entity resolution and risk scoring for cryptocurrency wallets



Entity Risk Scoring

Measure and monitor the risk of cryptocurrency businesses



Trainings

Empower your team with Crypto Investigations and Compliance training

And, lastly, FinClusive is also developing an offering in this field, with a full-stack financial crimes compliance platform

Comprehensive Compliance

- Comprehensive KYB/KYC/CDD including enhanced due diligence (EDD) for:
 - o Individuals
 - o Organizations and entities globally—including significant parties
- Adherence to global standards and a modernized Rulebook designed for financial technology companies, Virtual Asset Service Providers (VASPs) and alternative financial ecosystems.

Accounts Management

- Link external accounts for funding in/out as necessary—domestic and international.
- Access for international organizations to FDIC insured FBO/master account for the organization as well
 as its clients and counterparties.
- APIs for accounts/subaccount management and ledgering services facilitates small and medium banks with underdeveloped technology.

Risk Scoring, Analytics, Business Intelligence

- Provide monitoring and timing of transfers into/out of core service platform (e.g. trading/exchange,
 P2P transfers).
- Client and transaction-related risk scoring for compliance, audit and business intelligence.

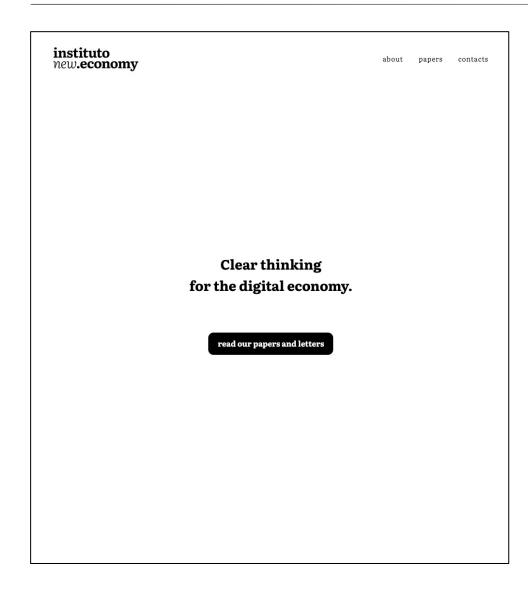
Forward Leaning Financial Institutions

Forward leading financial institutions are expected to have a robust financial crimes compliance (FCC) program.

From community banks to international correspondents, newly created neo/challenger banks and trust companies—regulators expect to see globally compliant frameworks to meet the new risks of tomorrow.

Thank you

Get in touch with us through our website



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Questions & Answers