

A Regulatory approach to Virtual assets and their associated risks

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Agenda



1. Cryptocurrency Basics
2. FATF Guidance
3. Type Overview
4. Cryptocurrency Type Deep Dive
5. Wrap Up
6. Questions



cryp•to•cur•ren•cy

/'kriptō ,kərənsē/

noun

does not have a single
administering authority.

has an equivalent value in real
currency and can be exchanged back-
and-forth for real currency.

a math-based, decentralized, convertible,
virtual currency that is protected by cryptography

a digital representation of value that can be digitally
traded and functions as
a medium of exchange; and/or
a unit of account; and/or
a store of value,

The conversion (encryption) of
data for secure transmission over
a public network

The FATF Guidance



Published in **June, 2019**, The **FATF Guidance for a Risk-Based Approach to Virtual Assets and Virtual Asset Service Providers**¹ provides countries and VASPs clarity on how existing AML and CTF regulations impact virtual asset activities and providers:

- *How do virtual assets activities and virtual asset service providers fall within the scope of the FATF Recommendations? (Section II)*
- *How should countries and competent authorities apply the FATF Recommendations in the context of virtual assets or virtual asset service providers? (Section III)*
- *How do the FATF Recommendations apply to virtual asset service providers, and other entities (including banks, securities broker-dealers) that engage in or provide virtual asset covered activities?*

1. <http://www.fatf-gafi.org/publications/fatfrecommendations/documents/guidance-rba-virtual-assets.html>

The FATF Guidance



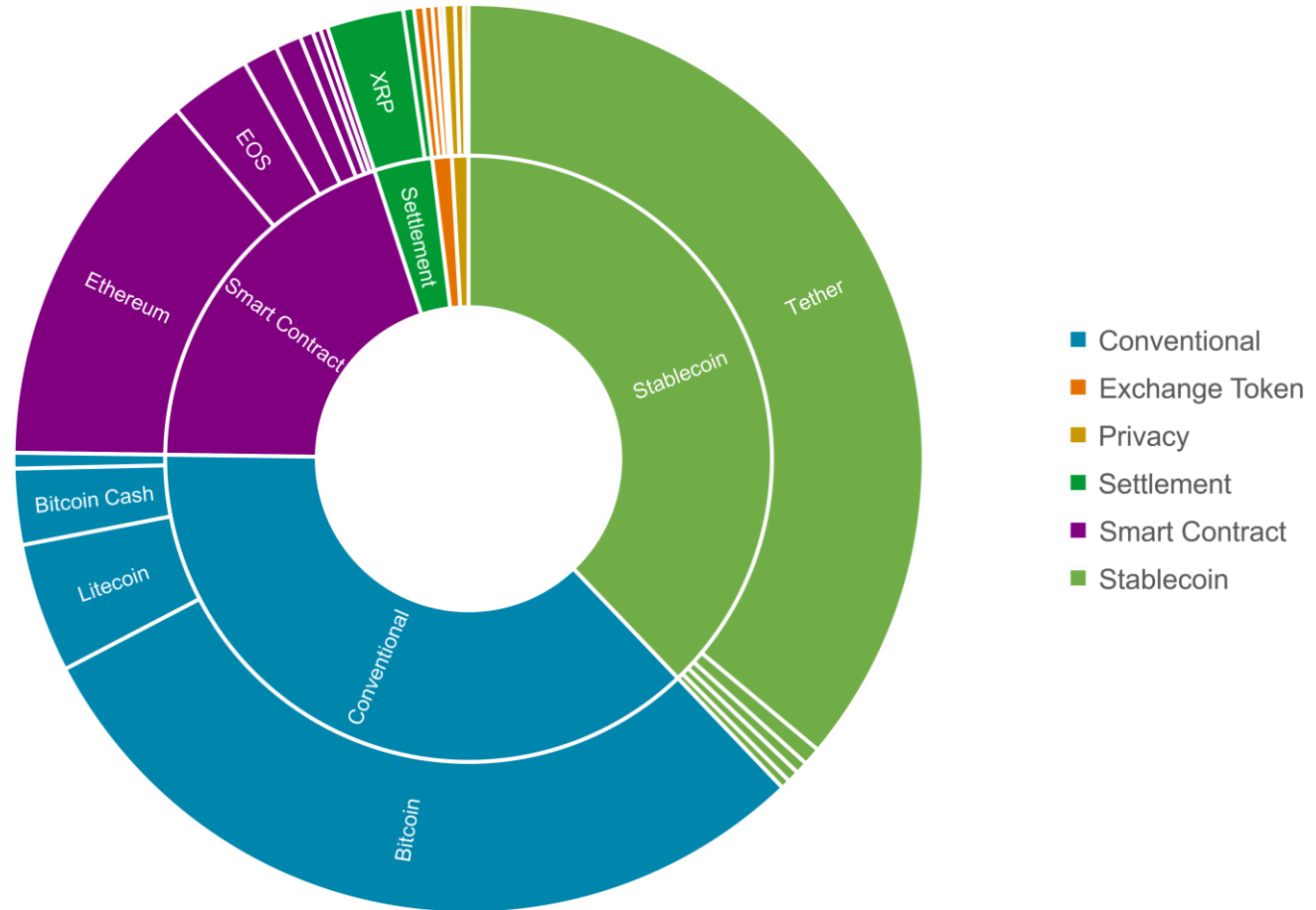
The FATF Guidance lays out 10 elements that are critical in risk mitigation of VAs and VASPs:

- a) Risks associated with crypto-to-fiat and crypto-to-crypto transactions
- b) Centralized vs decentralized models
- c) Types of VAs offered and the features of those VAs**
- d) Unique business models associated with VASPs
- e) Online-only versus in-person risks
- f) Exposure to anonymization services such as TOR
- g) Risks associated with multi-jurisdictional VASPs
- h) Nature and scope of the VA account, product or service
- i) Nature and scope of the VA payment channel or system
- j) Any parameters or measures in place that may lower the provider's exposure to risk

Most Common Coin Types

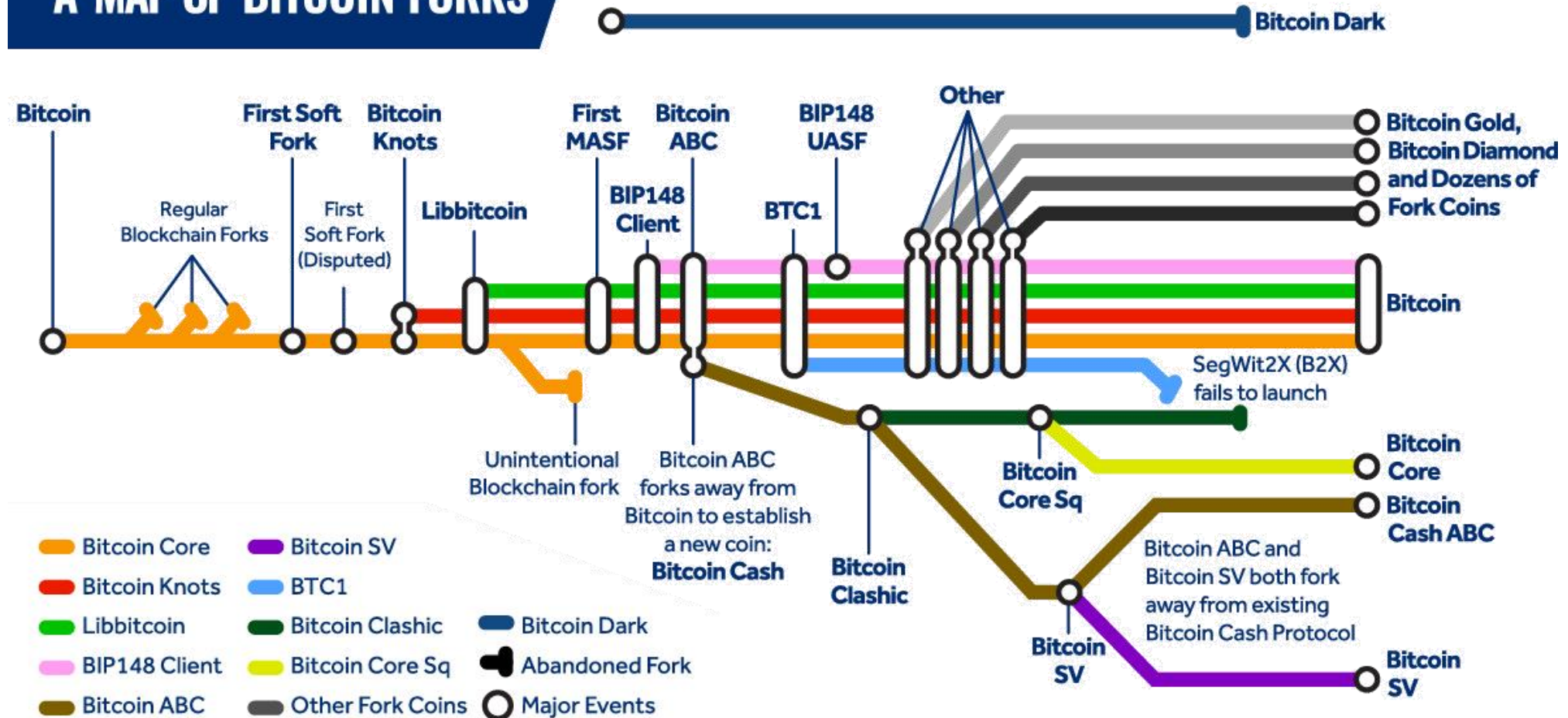
Top 25 cryptocurrencies by 30-day trading volume:

Type	% of Trading Volume
Stable Coin	37.88%
Conventional	37.33%
Smart Contract	19.76%
Settlement	3.11%
Exchange Token	1.04%
Privacy	0.88%
Supply Chain	< 0%



Where did these coins all come from?

A MAP OF BITCOIN FORKS



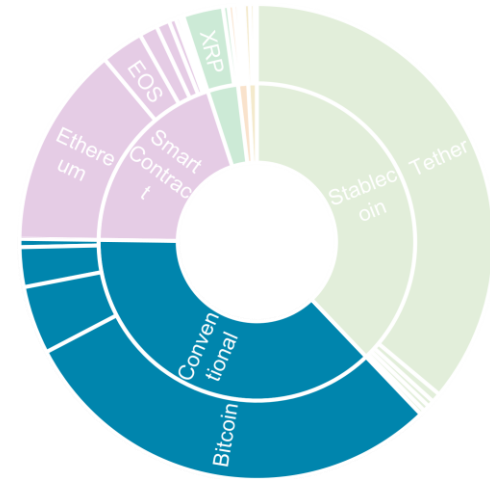
Conventional

Purpose:

Beginning with Bitcoin, conventional cryptocurrencies serve primarily as a means of holding and transmitting value, like fiat currency. Many, but not all, conventional coins split off (hard-forked) from Bitcoin or were modifications of the Bitcoin code.

Risk Profile:

- Bitcoin, the most famous and popular cryptocurrency, has many tools available to track and monitor transactions, thereby helping to manage and mitigate risk.
- Bitcoin is the most widely adopted, with an estimated 42 million wallet users¹, thereby making it the most commonly used currency for both legal and illicit activity.



Examples

	Market Cap:
Bitcoin	\$ 165 B
Bitcoin Cash	\$ 5 B
Litecoin	\$ 3.6 B
Bitcoin SV	\$ 2.4 B
Dogecoin	\$ 0.318 B

1. <https://www.blockchain.com/en/charts/my-wallet-n-users>

Stablecoins

Purpose:

Stablecoins are cryptocurrencies whose value is pegged to a currency, basket of goods, commodities, or other stable asset to minimize price volatility.

Risk Profile:

- While stablecoins are marketed as being backed by the pegged asset, it is hard to guarantee that the central authority possesses the assets to back up the currency.
- When stablecoins are pegged to a fiat currency (as many are), users can transact with the ease and lack-of-controls of cryptocurrency but without the volatility of other cryptocurrencies.



Examples

Tether (USDT)
 USD Coin (USDC)
 TrueUSD (TUSD)
 Paxos Standard (PAX)
 bitCNY
 Stasis Eurs
 Libra

Pegged to:



Smart Contract

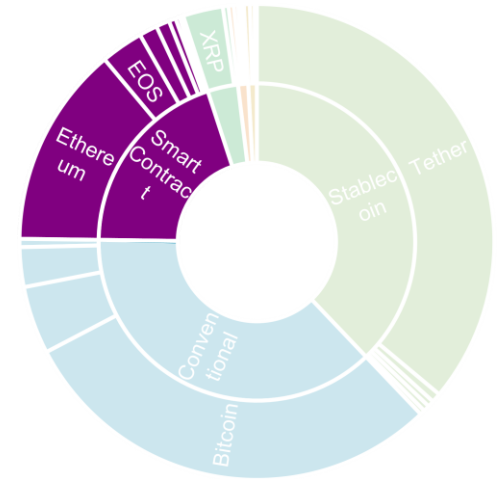


Purpose:

Coined “The World’s Computer”, Ethereum and subsequent Smart Contract (sometimes called dApps) cryptocurrencies enable code to be run on the blockchain. This code can be used to store, process, and represent ticket sales, equity trades, game tokens, and many other real-world assets in addition to running as normal software code.

Risk Profile:

- Smart Contracts can be written and deployed by anyone. Because of this, there have been numerous hacks (and subsequent losses) due to errors made by the creator of the Smart Contracts.
- Smart Contract wallets can store both value and other assets as defined by smart contracts, making it difficult to determine the nature of trades.



Examples



	Market Cap:
Ethereum	\$ 210 B
EOS	\$ 44 B
TRON	\$ 19 B
Ethereum Classic	\$ 14 B
NEO	\$ 7.2 B
Qtum	\$ 4.3 B
Chainlink	\$ 4.0 B

Settlement

Purpose:

The goal of settlement networks is to replace existing cross border payment networks that banks, MSBs, and people currently use. Ripple is focused on banks and MSBs, while Stellar is focused on individual exchanges of value.

Risk Profile:

- Both Ripple XRP and Stellar Lumens can be freely traded as a cryptocurrency, so the risk is similar to conventional cryptocurrencies.



Examples

Network	Currency
RippleNet	XRP
Stellar	Lumens

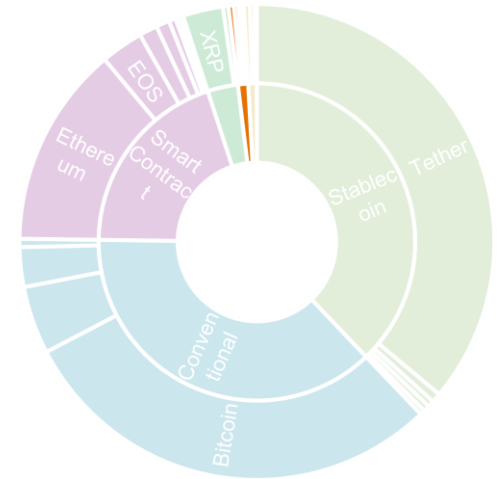
Exchange Token

Purpose:

Exchange Tokens provide an easy mechanism to transact within an exchange and pay exchange fees.

Risk Profile:

- Exchange tokens may be centralized and managed by the exchange, enabling the exchange to burn tokens and perform other currency management tasks.
- Risk profile of Exchange Tokens follows the same risk profile as other conventional tokens of similar



Examples

Currency	Exchange
Binance Coin (BNB)	Binance
ATOM	Cosmos
Huobi Token	Huobi
ZB	Zb.com

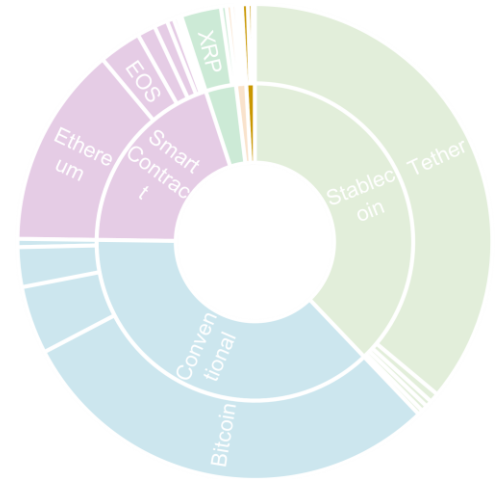
Privacy

Purpose:

Privacy coins use advanced cryptographic algorithms to ensure transactions are not linkable or traceable, thereby ensuring senders, receivers and transactions can be obfuscated from 3rd party observers.

Risk Profile:

- Privacy coins represent the **biggest AML/KYC risk** of all cryptocurrencies.
- Monero transactions are private by default, whereas zCash transactions can be either public or private.
- By obfuscating wallets and transactions, it can be difficult or impossible for a 3rd party to identify the nature and risk of a transaction.



Examples

Currency	Privacy
Monero	Always
zCash	Public by Default
Dash	Public by Default

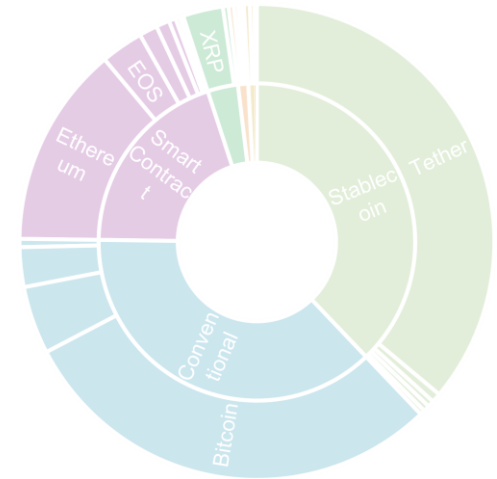
Supply Chain

Purpose:

By combining the immutable ledger of cryptocurrencies with tagging devices such as RFID tags, supply chain cryptocurrencies provide full supply chain traceability and material authenticity.

Risk Profile:

- Supply chain cryptocurrencies represent a very small percentage of the market.
- While trading of supply chain cryptocurrencies is open to any user with a compatible wallet, these purpose-built currencies are used mainly by individuals investing in the projects or using the supply chain aspects.



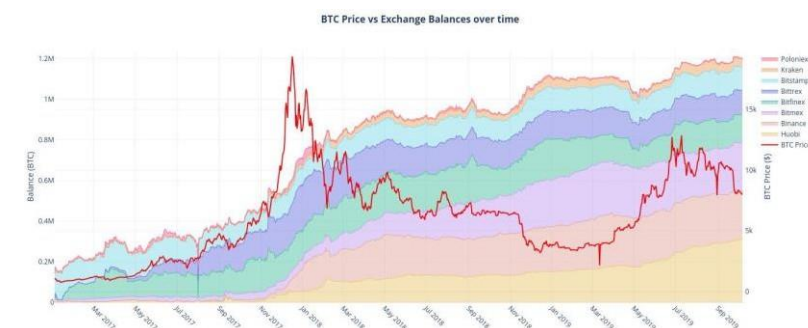
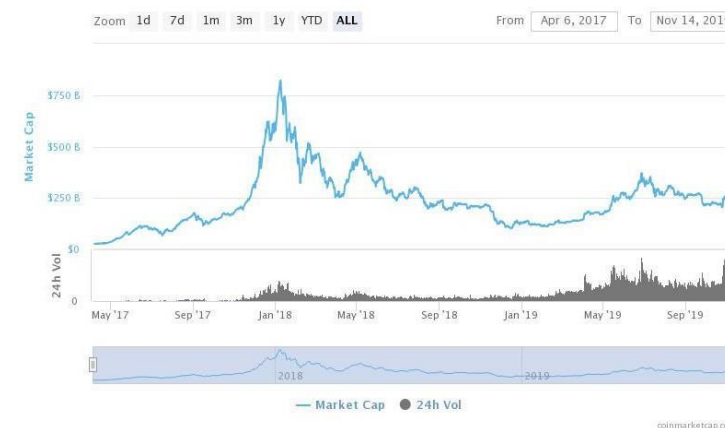
Examples

Currency	Focus
VeChain	Asian Economy
Budbo	US Cannabis
WaltonChain	General Usage
Ambrosus	Food & Medicine
Modum	Pharma
WaBi	Anti-Counterfeiting

Why FIs need to enter crypto market

- With a total market capitalization of ~ \$240 billion, exchanges and other VASPs need a safe and secure place to store the fiat value of their cryptocurrency.
- Currently, many crypto-exchanges bank offshore, increasing risk for the exchange and its customers
- In addition to custodial services for VASPs, new products could be offered by financial institutions to securely store private keys for users to help secure cryptocurrency wallets.
- *Banks and FIs are in the business of measured risk. Crypto is now mature enough to take that risk.*

Total Market Capitalization



What FIs need to do to mitigate risk



- **Risk Profile** all cryptocurrencies used by clients. Work with exchanges and other VASPs to understand the risk of each user's crypto activities.
- **Enhanced Due Diligence** on any VASPs being onboarded – FIs must understand the nature of the business, its value and purpose to the market, and its ability to run the business legally and securely.
- **Transaction Monitoring** for any currency (fiat or virtual asset) that enters the FI, including **blockchain forensics** for cryptocurrency accounts.
- Keep doing what you're doing! Sanctions screening, PEP screening, adverse media screening....

Recap – Key Takeaways



- When evaluating cryptocurrency risks, the cryptocurrency type must be evaluated and understood
- While Bitcoin maintains the largest market capitalization (about 65% of the total value of all cryptocurrency), most of the transaction volume is conducted in stable coins such as Tether.
- Each cryptocurrency type presents a different type of risk, but from an AML/KYC perspective, Privacy Coins pose the highest risk.
- New coins and new types will continue to emerge as coins split (hard fork), new coins are developed, and new problems are solved through cryptocurrency



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