# 1. Name of the Protocol: BNB

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| Name of the Token: | Binance Coin (BNB) |
| CoinGecko Link: | https://www.coingecko.com/en/coins/binance-coin |
| CoinMarketCap Link: | https://coinmarketcap.com/currencies/binance-coin/ |
| Official Website: | https://www.binance.com/ |
| Whitepaper Link: | https://whitepaper.io/document/10/binance-whitepaper |
| Initial Assessment | Dr Farrukh Habib |
| Reviewer | Mufti Billal Omarjee |

## 1.1. Main Function of the Protocol and Token:

Binance Coin (BNB) is an exchange-based token created and issued by the cryptocurrency exchange Binance. Initially created on the Ethereum blockchain as an ERC-20 token in July 2017, BNB was migrated over to Binance Chain in February 2019 and became the native coin of the Binance Chain.  
BNB was designed to be used to pay discounted fees on the Binance platform and function as the native token powering the Binance Chain.

BNB can be used as a payment method just like any cryptocurrency, a utility token to pay for fees on the Binance exchange and for participation in token sales on the Binance launchpad. BNB is also used on the Binance DEX (decentralized exchange).

## 1.2. Shariah Description of the Protocol and Token:

From a shariah perspective, BNB is a payment and utility (manfaah) token. It is used for Reduced Trading Fees. When trading fees on Binance are paid using BNB, users are entitled to a certain percentage discount in fees. Sometimes, users with account balances in BNB and certain accumulated trading volume above certain thresholds are given VIP tiers with additional fee discounts and perks. Users can convert non-tradeable amounts of various crypto assets called dust in their Binance account into BNB. Binance’s Initial Exchange Offerings (IEO) are conducted using lottery allocations determined using the amount of BNB held by users. Much like how Ether (ETH) is used to pay for fees on the Ethereum Blockchain, BNB is used to pay for fees on the Binance Chain. BNB is needed to trade on the Binance DEX. In addition to being used on Binance’s platforms, BNB can also be used for payments in various ways, such as paying for travels, credit card fees, gifts and other goods and services.

## 1.3. Shariah Opinion of the Protocol and Token:

BNB is a form of currency and it can be considered as a discount voucher/token as well that gives certain benefits to the users of Binance exchange and DEX as mentioned above. Although, it is used as a payment in the lottery prize on Binance, but that is not a shariah issue, because this activity does not directly impact the subject matter and nature of the token. Therefore, BNB can be considered as a shariah compliant asset.

# 2. Name of the Protocol: USDT

|  |  |
| --- | --- |
| Name of the Token: | Tether (USDT) |
| CoinGecko Link: | https://www.coingecko.com/en/coins/tether |
| CoinMarketCap Link: | https://coinmarketcap.com/currencies/tether/ |
| Official Website: | https://tether.to/ |
| Whitepaper Link: | https://tether.to/wp-content/uploads/2016/06/TetherWhitePaper.pdf |
| Initial Assessment | Dr Farrukh Habib |
| Reviewer | Mufti Billal Omarjee |

## 2.1. Main Function of the Protocol and Token:

USDT is a stablecoin (stable-value cryptocurrency) that mirrors the price of the U.S. dollar, issued by a Hong Kong-based company Tether. The token’s peg to the USD is achieved via maintaining a sum of dollars in reserves that is equal to the number of USDT in circulation.  
Originally launched in July 2014 as Realcoin, a second-layer cryptocurrency token built on top of Bitcoin’s blockchain using the Omni platform, it was later renamed to USTether, and then, finally, to USDT. In addition to Bitcoin’s, USDT was later updated to work on the Ethereum, EOS, Tron, Algorand, and OMG blockchains.

The stated purpose of USDT is to combine the unrestricted nature of cryptocurrencies — which can be sent between users without a trusted third-party intermediary — with the stable value of the US dollar.

## 2.2. Shariah Description of the Protocol and Token:

USDT is a digital crypto representation of the US dollar. According to the company, Tether, the value of USDT is guaranteed by Tether to remain pegged to the U.S. dollar. Whenever it issues new USDT tokens, it allocates the same amount of USD to its reserves, thus ensuring that USDT is fully backed by cash and cash equivalents. According to the company, the reserves backing the token include traditional currency and cash equivalents and, from time to time, may include other assets and receivables from loans made by Tether to third parties, which may include affiliated entities.

## 2.3. Shariah Opinion of the Protocol and Token:

The USD is considered a shariah compliant asset, based on the shariah rulings regarding the validity of the transactions being done in USD, and the ruling of paying zakat on USD reserves. USDT is pegged against the value of the USD. However, there is a shariah concern regarding the cash equivalents backing the value of USDT. These cash equivalents may involve riba-based loans, and financial products like bonds. However, those reserves only used to maintain the peg of USDT with the value of USD. The reserves are not directly attached with USDT in the sense that the holder of USDT has a direct ownership of the underlying reserves. Therefore, USDT can be considered as shariah compliant.

# 3. Name of the Protocol: LINK

|  |  |
| --- | --- |
| Name of the Token: | Chainlink (LINK) |
| CoinGecko Link: | https://www.coingecko.com/en/coins/chainlink |
| CoinMarketCap Link: | https://coinmarketcap.com/currencies/chainlink/ |
| Official Website: | https://chain.link/ |
| Whitepaper Link: | https://link.smartcontract.com/whitepaper |
| Initial Assessment | Dr Farrukh Habib |
| Reviewer | Mufti Billal Omarjee |

## 3.1. Main Function of the Protocol and Token:

Chainlink is a decentralized oracle network that brings off-chain data into an on-chain format, bridging the gap between the isolated blockchain and real-world data. Since blockchains cannot access data outside their network, oracles (a defi instrument) are needed to function as data feeds in smart contracts. In Chainlink's case, the oracles are connected to the Ethereum network. Oracles provide external data (e.g., temperature, weather) that trigger smart contract executions upon the fulfilment of predefined conditions. It also aims to ensure that the external information (pricing, weather data, event outcomes) fed to smart contracts remains untampered with. Chainlink is built on top of the Ethereum blockchain and Chainlink (LINK) is the native token of the protocol. LINK is used to pay Chainlink network operators for their services. LINK has two use-cases:

1. Internal Payment: This is the currency used to pay the Chainlink node operators for their work.
2. Staking: Chainlink node operators must stake in the network in order to participate and provide data services. Nodes with higher stakes have a higher chance of getting selected to provide the requested data.

Some of the data providers are: Binance, CoinGecko, Houbi, CryptoCompare, Everipedia, Brave NewCoin, Amber Data, Kaiko, etc. Some of the notable players participating in the Chainlink ecosystem include Aave, Synthetix, Yearn.Finance, and Google.

LINK is an ERC20 token, with the additional ERC223 'transfer and call' functionality of transfer, allowing tokens to be received and processed by contracts within a single transaction. Following the 2017 $32 million LINK ICO, 32 percent of LINK tokens were sent to node operators to incentivize the ecosystem and 30 percent stayed within Chainlink for development (35 percent were sold in the public token sale).

## 3.2. Shariah Description of the Protocol and Token:

Chainlink is a protocol that transforms real world (off-chain data) into on-chain data through oracles. It provides data in the form of data feeds in smart contracts. In this sense, it can be considered as data providing service from a shariah perspective. The LINK token is used in 2 ways:

1. As a payment token: data providers can sell their existing data and API services and get paid in the form of LINK. Node operators also get paid in the form of LINK for running and maintaining oracle infrastructure that ensures smart contracts across every blockchain have secure access to the highest quality real-world data.
2. Staking: Since the Chainlink network has a reputation system, node providers that have a large amount of LINK can be rewarded with larger contracts, while a failure to deliver accurate information results in a deduction of tokens. In this way, staking is used to act as a carrot and stick mechanism.

## 3.3. Shariah Opinion of the Protocol and Token:

Looking at the data providers, it seems that most of the data is relevant to blockchain-based transactions and other information related to blockchain-based projects. In this sense, the data can be considered as a shariah compliant subject matter. The protocol provides easy and decentralized access to that data as a service, while ensuring its authenticity, so it can be considered as a shariah compliant service.

The issuance of LINK and its usage as a payment and staking token also does not seem to be involved in any shariah prohibition. Hence, it is shariah compliant.

# 4. Name of the Protocol: UNISWAP

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| --- | --- |
| Name of the Token: | UNI |
| CoinGecko Link: | https://www.coingecko.com/en/coins/uniswap |
| CoinMarketCap Link: | https://coinmarketcap.com/currencies/uniswap/ |
| Official Website: | https://uniswap.org/ |
| Whitepaper Link: | https://uniswap.org/whitepaper.pdf |
| Initial Assessment | Dr Farrukh Habib |
| Reviewer | Mufti Billal Omarjee |

## 4.1. Main Function of the Protocol and Token:

Uniswap is a decentralized protocol for creating liquidity and trading ERC-20 tokens on Ethereum. It aims at decentralization, censorship resistance, and security. It eliminates intermediaries and unnecessary forms of rent extraction, allowing for fast and efficient trading.

Users just need an Ethereum wallet like Metamask and they can immediately start swapping tokens. Users can then swap tokens directly without the need of an orderbook. This works using an Automated Market Maker (AMM) where Liquidity Providers (LP) deposit tokens into the smart contract and this liquidity then provides a price quote to traders without relying on any professional market makers. Liquidity Providers are compensated with a 0.3% trading fee for providing liquidity on the protocol.

UNI is the governance token for Uniswap. UNI was introduced on 16th September 2020 through a retrospective airdrop to users who have interacted with the protocol either by swapping tokens or by providing liquidity.

UNI as a governance token aims at community-led growth, development, and self-sustainability. UNI is focused on a shared community ownership and governance system, to guide the protocol in the future. UNI officially makes Uniswap as publicly-owned and self-sustainable infrastructure while continuing to keep autonomous qualities.

## 4.2. Shariah Description of the Protocol and Token:

It is a decentralized exchange (DEX) that makes it easy for users to swap an ERC-20 token for another ERC-20 token without the need of a centralized intermediary. With a DEX, traders do not have to deposit their tokens on an exchange and be exposed to the security risks of a centralized exchange.

UNI token was first air dropped (free distribution) and its mining was started at the same time through liquidity pools. It allows token holders to participate in the governance of the protocol. Key decisions such as Uniswap governance, UNI community treasury, the protocol fee switch, uniswap.eth ENS name, Uniswap Default List (tokens.uniswap.eth) and SOCKS liquidity tokens are being done through UNI token.

## 4.3. Shariah Opinion of the Protocol and Token:

The protocol/platform has mixed (shariah compliant and non-shariah compliant) crypto assets because there is no limit of trading pairs at the UniSwap. People can create markets for any pair they like for trading purposes. So, it is possible that a trading pair may consist of non-shariah compliant crypto assets. However, the platform/protocol can be considered as a neutral subject matter or product because it is not biased towards non-shariah compliant assets.

UNI token as a governance mechanism for the protocol may not have any direct shariah prohibition. Therefore, it is shariah compliant.

# 5. Name of the Protocol: USDC

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| --- | --- |
| Name of the Token: | USD Coin (USDC) |
| CoinGecko Link: | https://www.coingecko.com/en/coins/usd-coin |
| CoinMarketCap Link: | https://coinmarketcap.com/currencies/usd-coin/ |
| Official Website: | https://www.centre.io/usdc |
| Whitepaper Link: | https://f.hubspotusercontent30.net/hubfs/9304636/PDF/centre-whitepaper.pdf |
| Initial Assessment | Dr Farrukh Habib |
| Reviewer | Mufti Billal Omarjee |

## 5.1. Main Function of the Protocol and Token:

USD Coin (known by its ticker USDC) is a stablecoin that is pegged to the U.S. dollar on a 1:1 basis. Every unit of this cryptocurrency in circulation is backed up by $1 that is held in reserve, in a mix of cash and short-term U.S. Treasury bonds.

## 5.2. Shariah Description of the Protocol and Token:

It is like USDT, but the difference between USDT and USDC is that USDC is externally audited and more aligned with the regulatory and compliance framework. In terms of the issuance, usage, underlying backing, there is not much difference between the two.

## 5.3. Shariah Opinion of the Protocol and Token:

The USD is considered a shariah compliant asset, based on the shariah rulings regarding the validity of the transactions being done in USD, and the ruling of paying zakat on USD reserves. USDC is pegged against the value of the USD. However, there is a shariah concern regarding the cash equivalents backing the value of USDC. These cash equivalents may involve riba-based loans, and financial products like bonds. However, those reserves only used to maintain the peg of USDC with the value of USD. The reserves are not directly attached with USDC in the sense that the holder of USDC has a direct ownership of the underlying reserves. Therefore, USDC can be considered as shariah compliant.

# 6. Name of the Protocol: Wrapped Bitcoin (WBTC)

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| --- | --- |
| Name of the Token: | Wrapped Bitcoin (WBTC) |
| CoinGecko Link: | https://www.coingecko.com/en/coins/wrapped-bitcoin |
| CoinMarketCap Link: | https://coinmarketcap.com/currencies/wrapped-bitcoin/ |
| Official Website: | https://wbtc.network/ |
| Whitepaper Link: | https://wbtc.network/assets/wrapped-tokens-whitepaper.pdf |
| Initial Assessment | Dr Farrukh Habib |
| Reviewer | Mufti Billal Omarjee |

## 6.1. Main Function of the Protocol:

Wrapped Bitcoin (WBTC) is an ERC-20 digital asset backed by [Bitcoin (BTC)](https://research.binance.com/en/projects/bitcoin) in a 1:1 fashion. When a user wishes to exchange BTC for WBTC, he/she will be required to send his/her BTC to a Merchant. The Merchant will initiate a WBTC mint request and send the BTC from the user to the Custodian. The Custodian will then mint the corresponding WBTC, which will be subsequently transferred to the user via the Merchant. When a user wishes to redeem his/her BTC with WBTC, the Merchant would communicate with the Custodian and transfer the user's BTC back to him/her, while the WBTC token will be burnt.

## 6.2. Description of the Protocol from Shariah Point of View:

A wrapped token is a cryptocurrency token pegged to the value of another crypto. It’s called a wrapped token because the original asset is put in a wrapper, a kind of digital vault that allows the wrapped version to be created on another blockchain. A wrapped token is like a stablecoin in that it derives its value from another asset. In a stablecoin's case, that’s usually fiat currency. In a wrapped token’s case, it’s usually an asset natively living on another blockchain.

There are a few key players in the WBTC ecosystem. They are:

1. Custodian - Custodians are institutions that store crypto assets. In the case of WBTC, BitGo is responsible for custodying Bitcoin.
2. Merchant - Merchants play a key role in the distribution of WTBC by minting or burning WBTC.
3. Users - Users are holders of WBTC. Users can use WBTC to transfer and transact like any other ERC20 token in the Ethereum ecosystem.
4. WBTC DAO Member - WBTC DAO is the governing body that is responsible for contract changes and the addition/removal of custodian and merchant. This governance body helps decentralize the network via multi-sig contracts which requires all members to reach consensus before initiating a change.

In another word, wrap tokens work in a similar way to the Islamic contract of Wadi’ah. The token represents ownership of the underlying deposits. When these tokens exchange hands, it is the ownership of the underlying crypto that gets transferred to the new holder, through constructive possession.

## 6.3. Shariah Opinion of the Protocol:

It is permissible to trade WBTC. Since the token represents BTC as a currency, all the rulings pertaining to currencies will apply when trading WBTC.

# 7. Name of the Protocol: Cronos (CRO)

|  |  |
| --- | --- |
| Name of the Token: | Cronos (CRO) |
| CoinGecko Link: | https://www.coingecko.com/en/coins/cronos |
| CoinMarketCap Link: | https://coinmarketcap.com/currencies/cronos/ |
| Official Website: | https://crypto.com/ |
| Whitepaper Link: | https://whitepaper.cronos.org/ |
| Initial Assessment | Dr Farrukh Habib |
| Reviewer | Mufti Billal Omarjee |

## 7.1. Main Function of the Protocol:

CRO Tokens are the utility token for the Crypto.com ecosystem. The Crypto.com Chain was created to build a network of cryptocurrency projects and develop merchants’ ability to accept crypto as a form of payment. An overview of the products offered by Crypto.com is as followed:

1. Payment - Crypto.com Pay, Visa Card
2. Trading - Crypto.com App, Crypto.com Exchange
3. Financial Services - Decentralized Finance Products, Crypto Earn, Crypto Credit

## 7.2. Description of the Protocol from Shariah Point of View:

Crypto.com is essentially functioning like a bank. Some of their services such as payments to merchants can be considered as halal whilst others such as lending are most likely not permissible if it involves the receipt of interest. The CRO token will power all the products offered on their blockchain. CRO acts as an intermediary currency, allowing you to convert your cryptocurrencies into fiat counterparts at a much-reduced cost. All users on the chain will need to fund block transaction fees using CRO, and tokens can be earned as rewards for processing and verifying transactions on the network. CRO token should therefore be seen primarily as payment token although it may provide certain benefits like utility tokens.

## 7.3. Shariah Opinion of the Protocol:

Although the ecosystem may have certain haram elements, it can also be used for halal purposes. Since the CRO tokens are also considered to be like a cryptocurrency, it is permissible to trade and hold CRO tokens like any other currencies.

# 8. Name of the Protocol: OKB (OKB)

|  |  |
| --- | --- |
| Name of the Token: | OKB (OKB) |
| CoinGecko Link: | https://www.coingecko.com/en/coins/okb |
| CoinMarketCap Link: | https://coinmarketcap.com/currencies/okb/ |
| Official Website: | https://www.okx.com/okb |
| Whitepaper Link: | https://www.okx.com/okb |
| Initial Assessment | Dr Farrukh Habib |
| Reviewer | Mufti Billal Omarjee |

## 8.1. Main Function of the Protocol:

OKEx supports a wide range of trading tools, including spot trading, margin trading, futures, perpetual swap, and options. The exchange has also diversified to provide many other services to a variety of users from the OKEx mining pool to its wallet, the OKEx Cloud, and its Earn and Loan features that offer staking and savings services for users to make the most of their spare coins and earn interest while they hold.

OKB is the native token of the exchange and is issued by the OK Blockchain Foundation, adopted by OKEx as its global utility token. OKB has developed 52 application scenarios internally and externally, covering payments, market data, wallet, lending and wealth management, cybersecurity, travel, lifestyle, and entertainment applications, which allow holders to purchase products or services with OKB.

## 8.2. Description of the Protocol from Shariah Point of View:

OKEx platform has a wide range of services that are mostly non shariah compliant, such as interest-based lending, trading of derivatives etc. On the other hand, it also offers an exchange based on spot trading which should be acceptable from a shariah perspective. As for the OKB tokens, it can also be traded within an ecosystem which is external to OKEx, such as means of payments for shariah compliant purposes (e.g., aviation and security services or to purchase items such as bags and fashion accessories from certain retailers). It is therefore a currency rather than a utility token.

## 8.3. Shariah Opinion of the Protocol:

The internal ecosystem has shariah and non shariah compliant services, and the token itself can also be used externally for compliant and non-compliant services too. Therefore, it is fair to say that the token itself as a cryptocurrency is shariah compliant.

# 9. Name of the Protocol: Huobi Token (HT)

|  |  |
| --- | --- |
| Name of the Token: | Huobi Token (HT) |
| CoinGecko Link: | https://www.coingecko.com/en/coins/huobi-token |
| CoinMarketCap Link: | https://coinmarketcap.com/currencies/huobi-token/ |
| Official Website: | https://www.huobi.com/en-us/ |
| Whitepaper Link: |  |
| Initial Assessment | Dr Farrukh Habib |
| Reviewer | Mufti Billal Omarjee |

## 9.1. Main Function of the Protocol:

Huobi functions similarly to other cryptocurrency exchanges. People can buy and sell cryptocurrencies, and the platform makes money by charging a transaction fee. The Huobi Token is fuel for the Huobi system. Huobi Token is an ecosystem token launched by Huobi Global, offering benefits such as trading fee and margin discounts and access to certain trading events.

## 9.2. Description of the Protocol from Shariah Point of View:

The ecosystem in which HT is currently used, have both shariah compliant and non-compliant trading mechanisms like many of the crypto exchanges. The token itself can be considered as a utility token that provides certain benefits to its holder.

## 9.3. Shariah Opinion of the Protocol:

Given some of the acceptable benefits provided to the HT token holder such as discount on trading fees and voting rights, it can be said that the token is permissible to trade and hold.

# 10. Name of the Protocol: THETA (Theta Network)

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| --- | --- |
| Name of the Token: | Theta Network (THETA) |
| CoinGecko Link: | https://www.coingecko.com/en/coins/theta-network |
| CoinMarketCap Link: | https://coinmarketcap.com/currencies/theta-network/ |
| Official Website: | https://www.thetatoken.org/ |
| Whitepaper Link: | https://s3.us-east-2.amazonaws.com/assets.thetatoken.org/Theta-white-paper-latest.pdf |
| Initial Assessment | Dr Farrukh Habib |
| Reviewer | Mufti Billal Omarjee |

## 10.1 Main Function of the Protocol:

Theta Network is the leading video delivery network powered by blockchain technology. Theta allows users to simultaneously watch video content and earn token rewards for relaying video to other users who are also watching the same content. In the same vein as other sharing economy models, the users opt-in to volunteering their spare bandwidth and computing resources to relay video to other users and earn token rewards for their contributions. Users can contribute to Theta Network on any PC, mobile device, or smart TV.

The Theta Network features a dual token design. The Theta Token (THETA) is the governance token of the Theta protocol. THETA is used to be staked as a Validator or Guardian node, contributing to block production and the protocol governance of the Theta Network. By staking and running a node, users will earn a proportional amount of the new TFUEL generated. The supply of THETA is fixed at 1 billion and will never increase. Theta Fuel (TFUEL) is the operational token of the Theta protocol. TFUEL is used for on-chain operations like payments to Edge Node relayers for sharing a video stream, or for deploying or interacting with smart contracts. Relayers earn TFUEL for every video stream they relay to other users on the network. You can think of Theta Fuel as the “gas” of the protocol.

## 10.2 Shariah Description of the Protocol and Token:

The Thetha platform is a generic platform that can be used to post shariah compliant and non-compliant contents from esports, music, TV and movies to distance learning and peer to peer live streaming.

Whilst the Theta tokens are the governance token of the Theta network. They provide users with a host of functionalities. THETA allows nodes to validate transactions, produce blocks, vote on changes to the network and earn TFUEL as a reward.

Further, TFUEL is used to pay for transactions on Theta and is used as the micropayment currency when users pay Edge Nodes for sharing a video stream.

Lastly, developers wishing to publish a new application on the Theta Network use TFUEL for the deployment and operations of their smart contracts.

## 10.3 Shariah Opinion of the Protocol:

THETA tokens are used for staking and governance purposes. As the protocol can also be used for shariah compliant purposes, there is a possibility to consider it shariah compliant. However, the shariah compliance of Theta Network depends on the main content which is shared through this network. If most of it is haram, then the platform would be haram as well. However, the question is how to find out the nature of the content?

Until there is valid reason to opine otherwise, THETA token can be considered halal.

# 11. Name of the Protocol: Theta Fuel (TFUEL)

|  |  |
| --- | --- |
| Name of the Token: | Theta Fuel (TFUEL) |
| CoinGecko Link: | https://www.coingecko.com/en/coins/theta-fuel |
| CoinMarketCap Link: | https://coinmarketcap.com/currencies/theta-fuel/ |
| Official Website: | https://www.thetatoken.org/ |
| Whitepaper Link: | https://s3.us-east-2.amazonaws.com/assets.thetatoken.org/Theta-white-paper-latest.pdf?v=1553657855.509 |
| Initial Assessment | Dr Farrukh Habib |
| Reviewer | Mufti Billal Omarjee |

## 11.1 Main Function of the Protocol:

Theta Network is the leading video delivery network powered by blockchain technology. Theta allows users to simultaneously watch video content and earn token rewards for relaying video to other users who are also watching the same content. In the same vein as other sharing economy models, the users opt-in to volunteering their spare bandwidth and computing resources to relay video to other users and earn token rewards for their contributions. Users can contribute to Theta Network on any PC, mobile device, or smart TV.

The Theta Network features a dual token design. The Theta Token (THETA) is the governance token of the Theta protocol. THETA is used to be staked as a Validator or Guardian node, contributing to block production and the protocol governance of the Theta Network. By staking and running a node, users will earn a proportional amount of the new TFUEL generated. The supply of THETA is fixed at 1 billion and will never increase. Theta Fuel (TFUEL) is the operational token of the Theta protocol. TFUEL is used for on-chain operations like payments to Edge Node relayers for sharing a video stream, or for deploying or interacting with smart contracts. Relayers earn TFUEL for every video stream they relay to other users on the network. You can think of Theta Fuel as the “gas” of the protocol.

## 11.2 Shariah Description of the Protocol and Token:

The Theta platform is a generic platform that can be used to post shariah compliant and non-compliant contents from esports, music, TV and movies to distance learning and peer to peer live streaming. The Theta network also allows developers to build decentralized applications on top of its blockchain which can include halal and haram dapps.

TFUEL acts more as a means of payment on the platform as it is used to pay for transactions on Theta. For example, users who either share their bandwidth or relay video streams over the Theta network in return for TFUEL.

## 11.3 Shariah Opinion of the Protocol:

Theta platform is generic, and a user can make use of it in a halal manner just like one can use YouTube in a halal way. Since TFUEL main function is to act as a means of payment, it can therefore be shariah compliant too if earned and spent in a halal way.

# 12. Name of the Protocol: LEO

|  |  |
| --- | --- |
| Name of the Token: | LEO Token (LEO) |
| CoinGecko Link: | https://www.coingecko.com/en/coins/leo-token |
| CoinMarketCap Link: | https://coinmarketcap.com/currencies/unus-sed-leo/ |
| Official Website: | https://leo.bitfinex.com/ |
| Whitepaper Link: | https://www.bitfinex.com/wp-2019-05.pdf |
| Initial Assessment | Dr Farrukh Habib |
| Reviewer | Mufti Billal Omarjee |

## 12.1. Main Function of the Protocol and Token:

iFinex Inc. (iFinex), is a company that operates a cryptocurrency trading platform, under the name Bitfinex, and provides numerous other crypto asset related products and services.

LEO was launched in May 2019, on 2 different blockchains, Ethereum and EOS. It is a utility token for use across the iFinex ecosystem and other iFinex trading platforms, particularly on Bitfinex. It allows Bitfinex users to save money on trading fees. The extent of the discount depends on how much LEO that a customer has in his/her account. Different discount offers are spread across three tiers. There are fluctuations in the discount offers depending on whether a trading pair is crypto-to-crypto, or crypto-to stablecoin.

Unlike many other cryptocurrencies out there, it is not designed to exist forever. iFinex is committed to buying back LEO from the market monthly. The amount that is purchased and burned is equal to at least 27% of the revenues generated by iFinex — and tokens are also purchased at the market rate. Currently (13 March 2021) 4.155% LEO tokens have been burnt.

LEO’s utility lies in reductions of fees and other discounts on BitFinex and other products, as well as similar fee reductions and/or other features and benefits for future iFinex trading platforms, products, and services.

## 12.2. Shariah Description of the Protocol and Token:

From the shariah perspective, LEO is a utility (manfaah) token. It is used for Reduced Trading Fees, so it is a discount voucher. When trading fees on Bitfinex are paid using LEO, users are entitled to a certain percentage discount in fees.

## 12.3. Shariah Opinion of the Protocol and Token:

LEO can be considered as a discount voucher/token that gives certain benefits to the users of Bitfinex exchange and other iFinex products as mentioned above. Although, it also gives a discount in the fees for transactions that involve derivatives, interest-based lending, but that is not a shariah issue in the nature of LEO as a subject matter, because these activities do not directly impact the nature of the token. Therefore, LEO can be considered as shariah compliant asset.

# 13. Name of the Protocol: ZIL

|  |  |
| --- | --- |
| Name of the Token: | Zilliqa (ZIL) |
| CoinGecko Link: | https://www.coingecko.com/en/coins/zilliqa |
| CoinMarketCap Link: | https://coinmarketcap.com/currencies/zilliqa/ |
| Official Website: | https://www.zilliqa.com/ |
| Whitepaper Link: | https://docs.zilliqa.com/whitepaper.pdf |
| Initial Assessment | Dr Farrukh Habib |
| Reviewer | Mufti Billal Omarjee |

## 13.1. Main Function of the Protocol and Token:

ZILLIQA is a blockchain platform that is designed to scale in transaction rates. As the number of miners in ZILLIQA increases, its transaction rates are expected to increase. It is claimed that ZILLIQA would expect to process about a thousand times the

transaction rates of Ethereum. The cornerstone in ZILLIQA’s design is the idea of sharding, dividing the mining network into smaller shards each capable of processing transactions in parallel. The platform hosts many decentralized applications, and it also allows for staking and yield farming.

The native asset of Zilliqa, ZIL, is used to process transactions on the network and execute smart contracts. Although it is claimed to be a utility token, it seems that it is a cryptocurrency, meaning that it is mainly used for payment on the network to smart contracts and miners. It has a finite supply of 21 billion ZILs.

## 13.2. Shariah Description of the Protocol and Token:

From the shariah perspective, ZIL is designed to be a currency or payment token. It is the native token at Zilliqa blockchain platform. In this sense, it is like BTC and ETH with some technical advancements or differences.

The token is aimed to be used as a payment system in e-commerce, including businesses and retails.

## 13.3. Shariah Opinion of the Protocol and Token:

No shariah prohibition is found in the issuance (40% pre-mined and 60% mining). There is no shariah issue if the tokens are pre-mined, and if they are mined, even then the mining process does not involve any shariah non-compliant element, therefore, it is fine. Moreover, no shariah issues have been found in the usage, distribution, and nature of the token during the review, therefore, it can be considered shariah compliant.

# 14. Name of the Protocol: FTM

|  |  |
| --- | --- |
| Name of the Token: | Fantom (FTM) |
| CoinGecko Link: | https://www.coingecko.com/en/coins/fantom |
| CoinMarketCap Link: | https://coinmarketcap.com/currencies/fantom/ |
| Official Website: | https://fantom.foundation/ |
| Whitepaper Link: | https://fantom.foundation/research/wp\_fantom\_v1.6.pdf |
| Initial Assessment | Dr Farrukh Habib |
| Reviewer | Mufti Billal Omarjee |

## 14.1. Main Function of the Protocol and Token:

FANTOM is a DAG (Directed Acyclic Graph) based blockchain platform that intends to solve the scalability issues of existing blockchain platforms. One of the arguments is that DAG is not a blockchain, but a different distributed ledger technology that can run smart contracts.

FANTOM is different from the traditional blockchain-based storage infrastructure by attempting to employ an improved version of existing DAG-based protocols. It uses a different protocol known as the “Lachesis Protocol'' to maintain consensus. This protocol is intended to be integrated into the Fantom OPERA Chain. The aim is to allow applications built on top of the FANTOM OPERA Chain to enjoy instant transactions and near zero transaction costs for all users.

The main objective of FANTOM is to provide compatibility between all transaction bodies around the world and create an ecosystem which allows real-time transactions and data sharing with low cost.

This platform has its own native token called FTM with an in-built compatibility with ERC20 standards. Another version of FTM is available on Binance Chain using its BEP20 standard. Only the native FTM can be used on the Fantom OPERA mainnet itself. The token forms the backbone of transactions on the platform, and allows fee collection and staking activities, along with the user rewards the latter represents. Staking forms an important part of tokenomics of FTM, with a proportion of the supply reserved specifically for staking rewards to users who hold FTM.

## 14.2. Shariah Description of the Protocol and Token:

From the shariah perspective, FTM is designed to be a currency or payment token. It is the native token at FANTOM DLT (DAG) platform. In this sense, it is like BTC and ETH with some technical advancements or differences.

The token is aimed to be used to reward the miners and for staking purposes. In a wider scope, it is aimed to be used as a payment system in e-commerce, including businesses and retails.

## 14.3. Shariah Opinion of the Protocol and Token:

No major prohibitions are found in the issuance, usage, distribution, and nature of the token. Therefore, it can be considered shariah compliant.

# 15. Name of the Protocol: The Graph (GRT)

|  |  |
| --- | --- |
| Name of the Token: | The Graph (GRT) |
| CoinGecko Link: | https://www.coingecko.com/en/coins/the-graph |
| CoinMarketCap Link: | https://coinmarketcap.com/currencies/the-graph/ |
| Official Website: | https://thegraph.com/en/ |
| Whitepaper Link: | https://thegraph.com/docs/en/ |
| Initial Assessment | Dr Farrukh Habib |
| Reviewer | Mufti Billal Omarjee |

## 15.1 Main Function of the Protocol:

The Graph is an open-sourced software used to collect, process and store data from various blockchain applications to facilitate information retrieval. Originally launched on the Ethereum blockchain, The Graph’s mission is to help developers use relevant data to increase the efficiency of their decentralized applications (DApps).

The Graph analyzes and gathers blockchain data before storing it into various indices, called Subgraphs, allowing any application to send a query to its protocol and receive an immediate response. Queries are posed by dapps through GraphQL, a widely used language originally created by Facebook to gather data for a user's news feed.

The Graph Token, or $GRT, is its native ERC-20-based token that can serve as a medium of exchange and a reward for community participants who act as indexers, curators, and delegators.

## 15.2 Description of the Protocol from Shariah Point of View:

The Graph is like a database index, where people can retrieve information. Hence, platforms such as Uniswap uses the Graph as it is more of an efficient way to analyze historical data.

The GRT token is used as a means of staking and medium of exchange.

## 15.3 Shariah Opinion of the Protocol:

Graph is not used to validate transactions rather it is used to index them. There are no shariah issues found with this sort of activity, The token is shariah compliant and can also be used for staking purposes and payment.

# 16. Name of the Protocol: Binance USD (BUSD)

|  |  |
| --- | --- |
| Name of the Token: | BUSD |
| CoinGecko Link: | https://www.coingecko.com/en/coins/binance-usd |
| CoinMarketCap Link: | https://coinmarketcap.com/currencies/binance-usd/ |
| Official Website: | https://www.binance.com/en/busd |
| Whitepaper Link: | https://academy.binance.com/en/articles/what-is-busd |
| Initial Assessment | Dr Farrukh Habib |
| Reviewer | Mufti Billal Omarjee |

## 16.1. Main Function of the Protocol:

BUSD is a stablecoin founded by Paxos and Binance. Paxos uses blockchain technology to offer their Stablecoin as a Service product to external companies. BUSD is a fiat-backed stablecoin that maintains a U.S. dollar peg. An amount of U.S. dollars equal to the total supply of BUSD is held in custody by Paxos, acting as its reserves in FDIC-insured U.S. banks or backed by U.S. Treasuries. When the price of the U.S. dollar rises or falls, the price of BUSD also does in equal amounts. This is the most common and traditional model of stablecoin.

## 16.2. Description of the Protocol from Shariah Point of View:

From a shariah perspective many stablecoins function just as same as currencies which could be halal in itself. BUSD is a regulated, fiat-backed stablecoin pegged to the U.S. dollar. For every unit of BUSD, there is one U.S. dollar held in reserve. In other words, the supply of BUSD is pegged to the U.S. dollar at a 1:1 ratio. Holders can swap their tokens for fiat and vice versa. Paxos, the token’s issuer, releases monthly attestations of BUSD’s reserves.

As a stablecoin, BUSD is designed to maintain a stable market value. It allows investors and traders to hold a low-volatility asset on the blockchain without the need to exit the crypto space.

## 16.3. Shariah Opinion of the Protocol:

The USD is considered a shariah compliant asset, based on the shariah rulings regarding the validity of the transactions being done in USD, and the ruling of paying zakat on USD reserves. BUSD is pegged against the value of the USD. However, there is a shariah concern regarding the cash equivalents backing the value of BUSD. These cash equivalents may involve riba-based loans, and financial products like bonds. However, those reserves are only used to maintain the peg of BUSD with the value of USD. The reserves are not directly attached with BUSD in the sense that the holder of BUSD has a direct ownership of the underlying reserves. Therefore, BUSD can be considered as shariah compliant.

# 17. Name of the Protocol: VeChain (VET)

|  |  |
| --- | --- |
| Name of the Token: | VeChain (VET) |
| CoinGecko Link: | https://www.coingecko.com/en/coins/vechain |
| CoinMarketCap Link: | https://coinmarketcap.com/currencies/vechain/ |
| Official Website: | https://www.veworld.com/home |
| Whitepaper Link: | https://www.vechain.org/whitepaper/#bit\_65sv8 |
| Initial Assessment | Dr Farrukh Habib |
| Reviewer | Mufti Billal Omarjee |

## 17.1. Main Function of the Protocol:

VeChain is a blockchain built to help make supply chain management simpler. It was originally conceived to determine if a real-life product is fake or not - preventing frauds and knockoffs. Since then, it’s been used by major corporations to help track everything from wine production to car manufacturing.

The way it does that is simple: give each product a unique identity, then use sensors to track what happens at each stage of the supply chain. That way, companies can be sure products are handled correctly, and consumers can verify their purchases are legitimate.

VeChain has two separate tokens: VET and VTHO:

1. VET (VeChain Token) is used for financial transactions on the VeChainThor blockchain and market speculation.
2. VTHO (VeThor Token) is the “energy token” that’s used to conduct transactions on VeChainThor. The VeThor (VTHO) token is referred to as the “energy token”, used as gas to pay for transactions on the network. Each time any data is added to the blockchain through any financial or data transaction, this will require units of computational power. The VTHO token is used to cover the computational gas costs for all transactions on the VeChainThor blockchain. The cost will vary depending on the data and size of the transaction being processed.

## 17.2. Description of the Protocol from Shariah Point of View:

VET is the payment used in VeChain's system. The more VET a person or enterprise holds, the higher priority when it comes to using the blockchain's resources. From a shariah perspective, this indicates that VET is a hybrid token that acts as a means of payment and provides benefits to its holder.

## 17.3. Shariah Opinion of the Protocol:

The way the protocol is structured and the benefits that one can derive from the token can be considered as shariah compliant.

# 18. Name of the Protocol: BAT

|  |  |
| --- | --- |
| Name of the Token: | Basic Attention Token (BAT) |
| CoinGecko Link: | https://www.coingecko.com/en/coins/basic-attention-token |
| CoinMarketCap Link: | https://coinmarketcap.com/currencies/basic-attention-token/ |
| Official Website: | https://basicattentiontoken.org/ |
| Whitepaper Link: | https://basicattentiontoken.org/static-assets/documents/BasicAttentionTokenWhitePaper-4.pdf |
| Initial Assessment | Dr Farrukh Habib |
| Reviewer | Mufti Billal Omarjee |

## 18.1. Main Function of the Protocol and Token:

Basic Attention Token, or BAT, is the token that is used on a blockchain-based digital advertising platform designed to reward users for their attention, while providing advertisers with a return on their ad spend.

This experience is delivered through the Brave Browser, where users can watch privacy-preserving adverts and receive BAT rewards for doing so. On the other hand, advertisers can deliver targeted ads to maximize engagement and cut down losses due to ad fraud and abuse.

The Basic Attention Token itself is the unit of reward in this advertising ecosystem, and is exchanged between advertisers, publishers, and users. Advertisers pay for their advertising campaigns in BAT tokens. Out of this budget, a small portion is distributed to publishers, while 70% is distributed to users — whereas the intermediaries that typically drive-up advertising costs are cut out of the equation to improve cost-efficiency.

Brave browser’s value proposition is its privacy-centric advertisements which do not track users, and that they are only opt-in. As users browse the web and opt into advertisements on Brave, they are rewarded with BAT for their attention. Publishers also receive a share of the BAT if they can retain quality users, while advertisers get better returns on their advertising funds by being able to reach quality audiences who are willing to pay attention to ads.

Users who have BAT can also choose to automatically contribute their BAT tokens to publishers based on their attention spent on the website or to manually tip them. Some known publishers who have signed up with Brave include The Washington Post, Vice, The Guardian, and more.

## 18.2. Shariah Description of the Protocol and Token:

BAT is a native token on Brave Browser, and it is categorized as a utility token with ERC20 standards on Ethereum blockchain. It is not mineable, as all the tokens have been minted at the time of its ICO.

Users can either buy BAT at different exchanges where BAT is listed, or they can earn BAT by viewing ads served by the Brave browser, acquiring random BAT rewards, or joining the Brave Rewards Creators program. Users can choose to stream BAT tokens to publishers automatically or to tip their favourite publisher that they wish to support through Brave Rewards. BAT can also be collateralized on Maker to mint a new supply of DAI.

From the shariah perspective, it is a utility and reward token with a focus on digital advertising. It is also used as a payment system within the Brave Browser platform contributors (the community).

## 18.3. Shariah Opinion of the Protocol and Token:

Although digital advertising is considered as a mixed activity from the shariah perspective, the consideration should be given to the main issuance, structure, and nature of the token itself. Moreover, as a payment system it can be considered neutral with respect to the digital advertisement. Therefore, it can be considered as a shariah compliant token.

# 19. Name of the Protocol: REN

|  |  |
| --- | --- |
| Name of the Token: | REN (REN) |
| CoinGecko Link: | https://www.coingecko.com/en/coins/ren |
| CoinMarketCap Link: | https://coinmarketcap.com/currencies/ren/ |
| Official Website: | https://renproject.io/ |
| Whitepaper Link: | https://renproject.io/litepaper.pdf |
| Initial Assessment | Dr Farrukh Habib |
| Reviewer | Mufti Billal Omarjee |

## 19.1. Main Function of the Protocol and Token:

Ren is an ecosystem for building, deploying, and running general purpose, privacy preserving and multiparty computation protocol. It makes it possible for any kind of application to run in a decentralized, trust-less, and fault tolerant environment similar to blockchains but with the distinguishing feature that all application inputs, outputs, and state, remain a secret even to the participants running the network. Although Ren can power any kind of application, finance is the main use case for it. As such, Ren initially focuses on the state of private decentralized finance, and to provide a standard economic layer for future applications. There are three core components of REN such as:

1. A zero-knowledge transaction layer will make it possible to store and transfer tokens without exposing wallet balances or transaction amounts.
2. An interoperability layer will extend zero-knowledge transactions and make it possible to execute trust-less swaps between blockchains, and to bridge tokens from one blockchain to another.
3. A dark pool layer will provide secret order matching engines that work with orders known only to their owner. This will allow users to open orders without exposing the price or volume of their order to anyone, including the exchange itself. Using zero-knowledge transactions, users can then settle order matches in secret.

It was formerly known as Republic Protocol and originally wanted to be a “dark pool'' decentralized exchange project. A “dark pool” is an exchange in which financial assets are first matched and then traded on an order book that is private.

REN tokens were originally used to pay for transactional fees and used as a bond by those running the Dark nodes. The protocol rebranded itself in 2019 and focused on being a DeFi interoperability solution. Ever since then, REN is mainly used as a bond to operate the Dark nodes. Dark nodes function similarly to a validator node on a proof of stake blockchain.

Ren Protocol is a permissionless and trust-less protocol that allows users to transfer tokens across different blockchains. Ren’s core product, RenVM is focused on building an interoperability solution for Decentralized Finance (DeFi). RenVM offers liquidity to the Ethereum network and DeFi sector, through a value exchange bridge for users to convert their BTC, BCH and ZEC into an ERC-20 token equivalent. This ERC-20 token representing bitcoin is known as renBTC and can then be used on a wide selection of DeFi applications on Ethereum which includes features like lending, borrowing, trading and more.

The protocol’s native token, REN, functions as a bond for those running nodes which power RenVM, known as Darknodes. Ren charges various fees for internal operations, but most do not go towards direct profitability, instead being paid to miners. As an ERC-20 token, REN also attracts varying gas fees to power transactions.

To qualify and operate as a Darknode, one needs to stake 100,000 REN as collateral. Darknode entities earn a portion of the transaction fees collected during the swap. The fees are paid in the form of cryptocurrency that is being traded. For example, it will cost users a fee to swap bitcoin to renBTC and the Darknode facilitator will be entitled to a portion of the fees. The fees involved in the transaction are paid in the form of bitcoin.

## 19.2. Shariah Description of the Protocol and Token:

The REN protocol converts non-ERC20 assets (BTC, BCH and ZEC) into ERC20 tokens (renBTC, renBCH, and reZEC respectively). For this conversion, it charges a fee in the form of the same crypto asset that is converted.

REN token is used to register and run a Darknode. For every Darknode that a user registers, he will need to acquire 100,000 REN and be prepared to bond them into an Ethereum smart contract. This bond is returned after the Darknode is deregistered. In this way, it is like a security deposit.

So, first a user will need to buy 100,000 REN to deposit it as a security to run a Darknode, which will in turn, earn him BTC, BCH or ZEC as profit. Once he stops running the Darknode, his 100,000 REN will be given back to him.

## 19.3. Shariah Opinion of the Protocol and Token:

Since the underlying asset (BTC) is shariah compliant, its equivalent token renBTC would also be shariah compliant in nature. REN token is only used as a security deposit on the network, so it also seems to be shariah compliant.

# 20. Name of the Protocol: ETH

|  |  |
| --- | --- |
| Name of the Token: | Ethereum (ETH) |
| CoinGecko Link: | https://www.coingecko.com/en/coins/ethereum |
| CoinMarketCap Link: | https://coinmarketcap.com/currencies/ethereum/ |
| Official Website: | https://ethereum.org/en/ |
| Whitepaper Link: | https://ethereum.org/en/whitepaper/ |
| Initial Assessment | Dr Farrukh Habib |
| Reviewer | Mufti Billal Omarjee |

## 20.1. Main Function of the Protocol and Token:

Ethereum is a global, open-source platform for decentralized applications. In other words, Ethereum tries to create a world computer that anyone can build applications in a decentralized manner, while all states and data are distributed and publicly accessible. Ethereum supports smart contracts in which developers can write code to program digital value. Examples of decentralized apps (dapps) that are built on Ethereum include token, non-fungible tokens, decentralized finance apps, lending protocol, decentralized exchanges, and much more.

In addition to smart contracts, Ethereum can host other crypto assets, called “tokens,” through the use of its ERC-20 compatibility standard. In fact, this has been the most common use for the ETH platform so far: to date, more than 280,000 ERC-20-compliant tokens have been launched. Over 40 of these make the top-100 crypto assets by market capitalization, for example, USDT, LINK and BNB.

While Ethereum refers to the blockchain network. The native currency that flows within the Ethereum economy is called Ether (ETH). Ether is typically used to pay for transaction fees called Gas, and it is the base currency of the network.

On Ethereum, all transactions and smart contract executions require a small fee to be paid. This fee is called Gas. In technical terms, Gas refers to the unit of measure on the amount of computational effort required to execute an operation or a smart contract. The more complex the execution operation is, the more gas is required to fulfill that operation. Gas fees are paid entirely in ETH.

## 20.2. Shariah Description of the Protocol and Token:

Ethereum is a decentralized open source blockchain system. It works as a platform for numerous other cryptocurrencies, as well as for the execution of decentralized smart contracts. In this way, it is a shariah neutral platform which can be used for mixed purposes.

The native cryptocurrency of the platform, ETH, also seems to be shariah neutral.

ETH protocol and the currency have been certified as shariah compliant by Amanie Advisors. The link to their shariah paper is as: <https://amanieadvisors.com/download/1459/>

## 20.3. Shariah Opinion of the Protocol and Token:

Based on the critical analysis of the objectives, structure, and nature, no shariah issues are fundamentally present in the protocol and token. Therefore, it seems that ETH is shariah compliant.

# 21. Name of the Protocol: Bitcoin

|  |  |
| --- | --- |
| Name of the Token: | Bitcoin (BTC) |
| CoinGecko Link: | https://www.coingecko.com/en/coins/bitcoin |
| CoinMarketCap Link: | https://coinmarketcap.com/currencies/bitcoin/ |
| Official Website: | https://bitcoin.org/ |
| Whitepaper Link: | https://bitcoin.org/bitcoin.pdf |
| Initial Assessment | Dr Farrukh Habib |
| Reviewer | Mufti Billal Omarjee |

## 21.1. Main Function of the Protocol and Token:

Bitcoin is a cryptocurrency. It is a decentralized digital currency that is based on cryptography. As such, it can operate without the need of a central authority like a central bank or a company. It is unlike government-issued or fiat currencies such as US Dollars or Euro in which they are controlled by the country’s central bank. The decentralized nature allows it to operate on a peer-to-peer network whereby users can send funds to each other without going through intermediaries. It appears that the market values bitcoin for the following reasons.

1. Digital Gold - It is a viable digital store of value due to its digital scarcity.
2. Payment - Almost instant and low-cost transaction with anyone on the internet
3. Speculation - There are people speculating that Bitcoin may be the asset class of the future.

## 21.2. Shariah Description of the Protocol and Token:

Bitcoin is a peer-to-peer online currency, meaning that all transactions happen directly between equal, independent network participants, without the need for any intermediary to permit or facilitate them. Bitcoin was created to allow “online payments to be sent directly from one party to another without going through a financial institution.” Some concepts for a similar type of a decentralized electronic currency precede BTC, but Bitcoin holds the distinction of being the first-ever cryptocurrency to come into actual use. Bitcoin’s most unique advantage comes from the fact that it was the very first cryptocurrency to appear on the market.

Bitcoin plays the functions of money or currencies in general, although not issued by a government authority. Based on its wide acceptance and usage in practice, Bitcoin seems to fulfil the criteria of mal, money and thamaniyyah (monetary usage). Bitcoin does not contain any explicitly shariah-prohibited elements in it. Thus, adhering to the legal maxim “original rule in Shariah is that of permissibility in financial transactions”, Bitcoin can be accepted from a Shariah perspective.

## 21.3. Shariah Opinion of the Protocol and Token:

Bitcoin has legal value because in practice it is exchanged for other currencies, goods and services. It is permissible to exchange Bitcoin for other currencies, as well as accept them as a counter value in commodity transactions, furthermore it could be exchanged for other cryptocurrencies that are considered permissible. Exchanging Bitcoin with other currencies or with gold and silver are all governed by the money/currency exchange rules (bai al sarf) of Shariah.

# 22. Name of the Protocol: Tezos

|  |  |
| --- | --- |
| Name of the Token: | XTZ |
| CoinGecko Link: | https://www.coingecko.com/en/coins/tezos |
| CoinMarketCap Link: | https://coinmarketcap.com/currencies/tezos/ |
| Official Website: | https://tezos.com/ |
| Whitepaper Link: | https://tezos.com/whitepaper.pdf |
| Initial Assessment | Dr Farrukh Habib |
| Reviewer | Mufti Billal Omarjee |

## 22.1. Main Function of the Protocol:

Tezos operates like many of its blockchain competitors, as a platform for creating and running decentralized applications (DApps), as well as exchanging assets. People who hold XTZ can vote on proposals for protocol upgrades that have been put forward by Tezos developers. Tezos operates like many of its blockchain competitors, as a platform for creating and running decentralized applications (DApps), as well as exchanging assets. Smart contracts on Tezos are written in the Michelson programming language, designed specifically for the protocol. To perform transactions on the network, you use gas, which is converted into fees in the Tezos cryptocurrency, XTZ.

Tezos is a Proof of Stake (PoS) blockchain. Technically, it uses a variant of PoS called Delegated Proof of Stake (DPoS), although the implementation is unique to Tezos.

Participants who hold over 8,000 Tezos can become delegates and run the network through baking and endorsing. Baking means creating new blocks (essentially another word for staking), while endorsing means “agreeing” on a block created by a baker. Alternatively, if a token holder doesn’t have 8,000 XTZ or doesn’t want to set up the required hardware themselves, they can delegate these tasks to someone else.

## 22.2. Description of the Protocol from Shariah Point of View:

Tezos is a platform that provides generic compliant services. Its native token is a hybrid token that can be used as a means of payment and gives voting rights to its holder.

## 22.3. Shariah Opinion of the Protocol:

The generic nature of the platform can be used for halal/purposes, and the fact that the native token has halal usage, confirm that it Tezos is shariah compliant.

# 23. Name of the Protocol: Shiba Inu

|  |  |
| --- | --- |
| Name of the Token: | Shiba Inu (SHIB) |
| CoinGecko Link: | https://www.coingecko.com/en/coins/shiba-inu |
| CoinMarketCap Link: | https://coinmarketcap.com/currencies/shiba-inu/ |
| Official Website: | https://shibatoken.com/ |
| Whitepaper Link: | https://github.com/shytoshikusama/woofwoofpaper/raw/main/SHIBA\_INU\_WOOF\_WOOF.pdf |
| Initial Assessment | Dr Farrukh Habib |
| Reviewer | Mufti Billal Omarjee |

## 23.1. Main Function of the Protocol and Token:

It is a fun cryptocurrency or meme token that aims to transform itself into a decentralized system. The protocol claims to be a completely decentralized and community driven platform. The Shib token is an ERC20 token which might be used at the ShibSwap - a decentralized exchange - and an incubator - an NFT marketplace? In this sense, it might have some utility, but at the moment, it is not defined yet and the platform and the token do not have anything to offer.

## 23.2. Shariah Description of the Protocol and Token:

Shib does not seem to have an actual utility, at least at the moment. It was launched as a mockery or competitor of Doge coin, another meme token. According to the official website, the Shiba Inu token is “*the foundational currency that allows investors to hold millions, billions, or even trillions, of it in their wallets”*. While the platform boasts about being decentralized and community driven only, without an objective.

The initial supply of the Shib token was 1 quadrillion. Ryoshi - the founder of the token - locked 50% of the supply in Uniswap, then transferred the other half to Ethereum co-founder Vitalik Buterin for safekeeping. He did not hold any token for him/herself. Vitalik gave 10% of his Shib holding to a charity - India’s COVID-19 Relief Fund and burned 40% of its total supply to a dead wallet. That is the only real use case of this token so far.

It clearly shows that it does not have a real economic objective. It only got famous due to Vitalik’s charity giving and burning the rest of his allocation. Mostly it has been used for speculation only. Elon Musk’s tweets also fueled the speculative activity with this token.

## 23.3. Shariah Opinion of the Protocol and Token:

It is clear that this token has no well-defined purpose, utility or any other benefit on which a shariah ruling can be based. It is purely a speculative token, which people bet on for unusual price action. In this sense, its usage is questionable, and its harm is greater than its benefits. Moreover, the whole branding of the platform and token is related to a dog-breed which might be a shariah issue as well.

It might not have a shariah issue at micro - issuance, default nature - or technological - blockchain, crypto token - level. But it surely has usage and brand perception issues that can lead to other macro issues. Considering the Islamic legal maxims of avoiding the means to impermissible things and harm to the users, it does not seem to be shariah compliant.

# 24. Name of the Protocol: MANA (Decentraland)

|  |  |
| --- | --- |
| Name of the Token: | MANA (Decentraland) |
| CoinGecko Link: | https://www.coingecko.com/en/coins/decentraland |
| CoinMarketCap Link: | https://coinmarketcap.com/currencies/decentraland/ |
| Official Website: | https://decentraland.org/ |
| Whitepaper Link: | https://decentraland.org/whitepaper.pdf |
| Initial Assessment | Dr Farrukh Habib |
| Reviewer | Mufti Billal Omarjee |

## 24.1. Main Function of the Protocol and Token:

Decentraland is a virtual reality platform powered by the Ethereum blockchain which provides an infrastructure to support a shared virtual world, also known as a metaverse. It consists of a decentralized ledger for virtual land ownership, a protocol for describing the content of each land parcel, and a peer-to-peer network for user interactions. Through this platform, users can create, experience, and monetize content and applications.

The concept of land in Decentraland refers to a parcel of land in the 3D virtual world. Users can permanently own any land they purchase. They can create from any static 3D scenes to interactive systems such as games on their land. Landowners control what content is published to their portion of land. Individual parcels of land can be combined into estates to form larger plots of land.

Decentraland uses two tokens: MANA and LAND. MANA is an ERC-20 token that is used as a medium of exchange on the platform. MANA tokens can also be used to pay for a range of avatars, wearables, names, goods, services, and more on the Decentraland marketplace.

## 24.2. Shariah Description of the Protocol and Token:

Decentraland can be considered a virtual asset from the Shariah point of view because it is a “space” in a digital world, that can be specified, owned, distinguished, transferred from one party to another party. Its utility is based on its adjacency to other famous/important hubs (strategic location), its ability to host applications, and its identity mechanism.

MANA is purely a payment token that is used as a medium of exchange. It derives its value from the overall system.

## 24.3. Shariah Opinion of the Protocol and Token:

There seems to be no problem with the conceptual foundation of the project, and its native payment token, MANA. It is a free world where users can build anything they want, the applications can be halal or haram, it highly depends on the users. However, currently the land in this metaverse is mostly used for games, arts, and places with bars and discos, which may raise some shariah concerns.

Since most of the applications are either haram or in gray area, the platform may be seen to lead to haram things. Hence, to stop the means to haram things, it should be avoided. The platform and its tokens, therefore, seem to be not shariah compliant.

# 25. Name of the Protocol: LAND (Decentraland)

|  |  |
| --- | --- |
| Name of the Token: | LAND (Decentraland) |
| CoinGecko Link: | https://www.coingecko.com/en/coins/decentraland |
| CoinMarketCap Link: | https://coinmarketcap.com/currencies/decentraland/ |
| Official Website: | https://decentraland.org/ |
| Whitepaper Link: | https://decentraland.org/whitepaper.pdf |
| Initial Assessment | Dr Farrukh Habib |
| Reviewer | Mufti Billal Omarjee |

## 25.1. Main Function of the Protocol and Token:

Decentraland uses two tokens: MANA and LAND. LAND is a non-fungible token (NFT), ERC-721. It is a cryptographic representation of a parcel of land. It is like an ownership certificate of a piece of land in the metaverse. Users may purchase LAND directly from the official Marketplace of Decentraland, or they can buy LAND from the secondary markets, such as OpenSea.

## 25.2. Shariah Description of the Protocol and Token:

LAND is simply a cryptographic representation of a “piece of land” in Decentraland. In this sense, it is shariah neutral, because the parcel of land in Decentraland is an empty “space”. It highly depends on the users what they build on their piece of land.

## 25.3. Shariah Opinion of the Protocol and Token:

Currently, the land in this metaverse is mostly used for games, arts, and places with bars and discos, which may raise some shariah concerns, because the same is reflected by LAND token.

Since most of the applications are either haram or in gray area, the platform may be seen to lead to haram things. Hence, to stop the means to haram things, it should be avoided. The platform and its tokens, therefore, seem to be not shariah compliant.

# 26. Name of the Protocol: AXS (Axie Infinity)

|  |  |
| --- | --- |
| Name of the Token: | AXS (Axie Infinity) |
| CoinGecko Link: | https://www.coingecko.com/en/coins/axie-infinity |
| CoinMarketCap Link: | https://coinmarketcap.com/currencies/axie-infinity/ |
| Official Website: | https://axieinfinity.com/ |
| Whitepaper Link: | https://whitepaper.axieinfinity.com/ |
| Initial Assessment | Dr Farrukh Habib |
| Reviewer | Mufti Billal Omarjee |

## 26.1. Main Function of the Protocol and Token:

Axie Infinity is a blockchain-based video game that is partially owned and operated by its players. Inspired by popular games like Pokémon and Tamagotchi, Axie Infinity is a trading and battling video game. It allows players to collect, breed, raise, battle and trade token-based digital creatures known as Axies. Each Axie is a non-fungible token (NFT) with different attributes.

The Axie Infinity ecosystem also has its own unique governance token, known as Axie Infinity Shards (AXS). AXS are an ERC 20 governance token for the Axie universe. AXS has three main functions:

1. **Staking:** Players can lock up their tokens to receive newly created AXS. Stakers are also required to vote and play to claim rewards.
2. **Payment:** AXS is accepted as currency within the Axie NFT marketplace. AXS may also be used to determine eligibility for participation in certain sales/auctions conducted by the Axie team.
3. **Governance:** AXS are used to participate in key governance votes and will give holders a say in how funds in the Axie Community Treasury are spent.

The platform has another token called Smooth Love Potions, $SLP.

## 26.2. Shariah Description of the Protocol and Token:

Axie Infinity is a video game platform. The theme of the game is to create unique creatures and win battles with them. The main objective of this game is purely fun and entertainment, without any other outcome.

AXS is simply a governance token that gives its holder the right to vote in the system. It can also be used as a medium of exchange at the platform.

## 26.3. Shariah Opinion of the Protocol and Token:

This platform is based on a video game. Its two tokens also derived their value from the main platform. The theme of the video game itself does not seem to be haram, as it has a specific theme - creating unique creatures and doing battles with them. However the graphics and appearance of the creatures is objectionable according to the mainstream view. Such video games are considered a gray area in the mainstream shariah opinions. Moreover, there are a few shariah concerns, for example in-game music, betting (gambling), and involvement of people in an unproductive activity. It may lead to haram things as well. Therefore, due to those factors, it seems to be shariah non-compliant.

# 27. Name of the Protocol: Smooth Love Potion (SLP)

|  |  |
| --- | --- |
| Name of the Token: | Smooth Love Potion (SLP) |
| CoinGecko Link: | https://www.coingecko.com/en/coins/smooth-love-potion |
| CoinMarketCap Link: | https://coinmarketcap.com/currencies/smooth-love-potion/ |
| Official Website: | https://axieinfinity.com/ |
| Whitepaper Link: | https://whitepaper.axieinfinity.com/ |
| Initial Assessment | Dr Farrukh Habib |
| Reviewer | Mufti Billal Omarjee |

## 27.1. Main Function of the Protocol and Token:

Smooth Love Potion (SLP) tokens are ERC-20 crypto tokens that can be earned as rewards by Axie Infinity players through battle or adventure mode. This digital asset serves a replacement for experience points.

SLP are tokens that can be used to breed new digital pets, known as Axies. It was formerly known as Small Love Potion before the token upgrade to the Ronin blockchain.

In other words, SLP is used for the purpose of breeding different creatures and can be earned by winning battles and adventures in the game. It is not a governance token, therefore it is not used for voting.

You can buy Axies to play the game. Another way of obtaining Axies would be through some interest groups that offer Axies as a loan in the form of a scholarship. SLP earned from the game are splitted between the scholarship holders and the group lending out the Axies.

SLP earnings can vary depending on the players' skill and their energy resources. With the latest update, players can only earn SLP by competing in arena mode by battling other players. P2E mode will no longer reward players with a new supply of tokens.

## 27.2. Shariah Description of the Protocol and Token:

SLP is simply a token that can be earned through playing specific modes or levels of the game, Axie Infinity. A sufficient amount of these tokens can be used to create other creatures. In this sense, it has a limited scope. It can be considered as a proof-of-play token.

Although, SLP’s nature and mechanics does not directly violate shariah principles, video games are considered to be shariah non-compliant or gray at the best. The source of value for this token is the game that uses it.

## 27.3. Shariah Opinion of the Protocol and Token:

The theme of the video game itself does not seem to be haram, as it has a specific theme - creating unique creatures and doing battles with them. However, the graphics and appearance of the creatures is objectionable according to the mainstream view. Such video games are considered a gray area in the mainstream shariah opinions. Moreover, there are a few shariah concerns, for example in-game music, betting (gambling), and involvement of people in an unproductive activity. It may lead to haram things as well. Therefore, due to those factors, it seems to be shariah non-compliant.

# 28. Name of the Protocol: FTX Token

|  |  |
| --- | --- |
| Name of the Token: | FTX Token (FTT) |
| CoinGecko Link: | https://www.coingecko.com/en/coins/ftx-token |
| CoinMarketCap Link: | https://coinmarketcap.com/currencies/ftx-token/ |
| Official Website: | https://ftx.com/ |
| Whitepaper Link: | https://docs.google.com/document/d/1u5MOkENoWP8PGcjuoKqRkNP5Gl1LLRB9JvAHwffQ7ec/view |
| Initial Assessment | Dr Farrukh Habib |
| Reviewer | Mufti Billal Omarjee |

## 28.1. Main Function of the Protocol and Token:

FTX is a cryptocurrency derivatives exchange that offers futures, leveraged tokens and OTC trading. FTX claims that it stands out due to such features as clawback prevention, a centralized collateral pool and universal stablecoin settlement.

FTT is the native crypto token of the crypto derivatives trading platform FTX. The FTT token provides certain incentives such as trading fee rebates for its holders, with the % discount increasing along with the amount of FTT held.

To increase the value of FTT, FTX has designed some utility and network effects for it. For example, FTT can be used as collateral for futures positions. Customers who hold a certain amount of FTT for a period of time will receive lower FTX futures fees. Customers who hold enough FTT will receive rebates from all of their OTC trading on FTX.

FTX also has a burning mechanism to reduce the supply of FTT and hence increase its value. For example, there will be a repurchase and burning of FTT based on OTC volumes and revenue from the FTX OTC portal. One third of all fees generated on FTX will be used for an FTT repurchase, until at least half of all FTT is burned.  Any FTT bought this way will be burned.

## 28.2. Shariah Description of the Protocol and Token:

FTX is primarily a derivatives exchange, which facilitates trading of futures, leveraged tokens, and other activities. These financial instruments and activities are highly questionable from the Shariah perspective, hence making the whole FTX ecosystem non-compliant.

FTT token derives its value from the FTX ecosystem, and acts as its backbone. It is an ERC20 utility token that offers some discounts and access to specific features.

## 28.3. Shariah Opinion of the Protocol and Token:

FTX is not a halal platform because most of its products and services are not shariah compliant. The value of the FTT token is based on the FTX platform, hence, FTT is also not halal.

# 29. Name of the Protocol: The Sandbox

|  |  |
| --- | --- |
| Name of the Token: | The Sandbox (SAND) |
| CoinGecko Link: | https://www.coingecko.com/en/coins/the-sandbox |
| CoinMarketCap Link: | https://coinmarketcap.com/currencies/the-sandbox/ |
| Official Website: | https://www.sandbox.game/en/ |
| Whitepaper Link: | https://installers.sandbox.game/The\_Sandbox\_Whitepaper\_2020.pdf?\_ga=2.183182758.1465367723.1643705001-91860234.1643705001 |
| Initial Assessment | Mufti Billal |
| Reviewer | Dr Farurkh Habib |

## 29.1. Main Function of the Protocol and Token:

The Sandbox is a blockchain-based virtual world allowing users to create, build, buy and sell digital assets in the form of a game. By combining the powers of decentralized autonomous organizations (DAO) and non-fungible tokens (NFTs), the Sandbox creates a decentralized platform for a thriving gaming community.

According to the official whitepaper, the Sandbox platform’s main mission is to successfully introduce blockchain technology in mainstream gaming. The platform focuses on facilitating a creative “play-to-earn” model, which allows users to be both creators and gamers simultaneously. The Sandbox employs the powers of blockchain technology by introducing the SAND utility token, which facilitates transactions on the platform.

SAND is the utility token of the Sandbox’s versatile ecosystem and can be used for creating ASSET tokens, buying and selling ASSETS on the marketplace, participating in transactions involving LAND, and to interact with user-generated experiences.

SAND is also the governance token of the Sandbox DAO, which means that ownership of SAND tokens grants users voting rights to improve the platform as they wish.

## 29.2. Shariah Description of the Protocol and Token:

The Sandbox is software running on Ethereum that operates a decentralized virtual gaming world. At its core, the Sandbox is a game in which players can buy digital plots of land, called LAND, and create experiences on top of them to share with other users.

## 29.3. Shariah Opinion of the Protocol and Token:

Two issues can be raised regarding Sandbox, one is should Muslims be encouraged in spending time in gaming? One may argue that Sandbox is not a game in a true sense as it is being monetized and therefore should be seen as an investment. If that is the case, then another issue would be to ensure that the investment method on the Sandbox is also shariah compliant which at this stage could not be verified.

# 30. Name of the Protocol: Gala

|  |  |
| --- | --- |
| Name of the Token: | Gala (GALA) |
| CoinGecko Link: | https://www.coingecko.com/en/coins/gala |
| CoinMarketCap Link: | https://coinmarketcap.com/currencies/gala/ |
| Official Website: | https://app.gala.games/ |
| Whitepaper Link: |  |
| Initial Assessment | Mufti Billal |
| Reviewer | Dr Farrukh Habib |

## 30.1. Main Function of the Protocol:

Gala is a blockchain gaming platform that uses the play-to-earn model. Players can own non-fungible tokens (NFTs) and influence the governance of games within the Gala Games ecosystem. The Founder’s Nodes voting mechanism allows players to influence what games Gala should develop and what games should get funding.

Users can run Gala Nodes, which supports the Gala network. In return, they receive rewards like GALA, limited edition NFTs and other opportunities. The Gala Node ecosystem consists of a triple-proof node system – proof-of-work (PoW), proof-of-stake (PoS) and proof-of-storage. PoW are called Founder Nodes, which are tier-1 nodes based on 50,000 fully-owned NFTs. These are early supporters of the network, and will receive NFTs from all subsequent games and GALA allocated to their node license. PoS are paid nodes that operate for specific games, through a smart contract “rental” structure. Proof-of-Storage are free nodes that will allow the games to be fully hosted on the node ecosystem, removing reliance on centralized hosting solutions like Amazon S3.

GALA is an Ethereum token that powers Gala Games, a platform for blockchain gaming. GALA is used as the medium of exchange between Gala Games participants. For example, it can be used to pay for in-game items.

GALA is a utility token which is used as the medium of exchange between participants in the Gala Games ecosystem. The goal of introducing GALA is to provide a convenient and secure mode of payment and settlement between participants who interact within the Gala Games ecosystem (for example, payment of digital goods or in-game items). GALA does not in any way represent any shareholding, participation, right, title, or interest in Gala Games, their respective affiliates, or any other company, enterprise or undertaking. GALA does not entitle holders to any promise of fees, dividends, revenue, profits or investment returns, and are not intended to constitute securities. This token was created to be utilized on the Gala Games ecosystem, and ownership of GALA carries no rights, express or implied.

## 30.2. Description of the Protocol from Shariah Point of View:

So far, Gala Games has released one playable game – Town Star and an NFT collectible series – VOX. Town Star is a play-to-earn game in which users develop a town to farm competitively. Although there are other games that are being developed on the GALA blockchain, further research is needed to determine whether the games are shariah compliant or not.

Gala’s native token GALA is used as the main digital asset within the Gala Games ecosystem for purchasing items, peer-to-peer payments, rewarding nodes, and more.

## 30.3. Shariah Opinion of the Protocol:

Many scholars see gaming as something that is impermissible for various reasons. In order to determine if GALA is shariah compliant, each game that it provides must be screened. As for its token, although it might not be haram per se, due to the nature of the platform the least can be said is that it falls in a gray area.

# 31. Name of the Protocol: Maker

|  |  |
| --- | --- |
| Name of the Token: | Maker (MKR) |
| CoinGecko Link: | https://www.coingecko.com/en/coins/maker |
| CoinMarketCap Link: | https://coinmarketcap.com/currencies/maker/ |
| Official Website: | https://makerdao.com/en/ |
| Whitepaper Link: | https://makerdao.com/en/whitepaper/#overview-of-the-dai-stablecoin-system |
| Initial Assessment | Mufti Billal |
| Reviewer | Dr Farrukh Habib |

## 31.1. Main Function of the Protocol:

Maker (MKR) is the governance token of the MakerDAO and Maker Protocol — respectively a decentralized organization and a software platform, both based on the Ethereum blockchain — that allows users to issue and manage the DAI stablecoin. MKR tokens act as a kind of voting share for the organization that manages DAI; while they do not pay dividends to their holders, they do give the holders voting rights over the development of Maker Protocol.

Dai is easy to generate, access, and use. Users generate Dai by depositing collateral assets into Maker Vaults within the Maker Protocol. This is how Dai is entered into circulation and how users gain access to liquidity. Others obtain Dai by buying it from brokers or exchanges, or simply by receiving it as a means of payment.

Once generated, bought, or received, Dai can be used in the same manner as any other cryptocurrency: it can be sent to others, used as payments for goods and services, and even held as savings through a feature of the Maker Protocol called the Dai Savings Rate (DSR), expected to appreciate in value in accordance with the success of DAI itself.

## 31.2. Description of the Protocol from Shariah Point of View:

Maker operates a dual token system MKR which is a governance token. And DAI which is a token created out of loans made by the platform to the users. The interest on these loans are paid through the stability fee. This stability fee should not be confused with a maintenance fee or service fee for using the Maker Vault. It is clear that the crypto deposits are used as collateral for borrowing DAI. Hence, if the collateralization ratio drops below 150% the trader’s collateral will be liquidated to pay off their loan.

## 31.3. Shariah Opinion of the Protocol:

The platform is used to generate interest-based loans, hence creating DAI and owning MKR are not shariah compliant.

# 32. Name of the Protocol: Aave

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| --- | --- |
| Name of the Token: | Aave (AAVE) |
| CoinGecko Link: | https://www.coingecko.com/en/coins/aave |
| CoinMarketCap Link: | https://coinmarketcap.com/currencies/aave/ |
| Official Website: | https://aave.com/ |
| Whitepaper Link: | https://github.com/aave/aave-protocol/blob/master/docs/Aave\_Protocol\_Whitepaper\_v1\_0.pdf |
| Initial Assessment | Mufti Billal |
| Reviewer | Dr Farrukh Habib |

## 32.1. Main Function of the Protocol:

Aave is a decentralized finance protocol that allows users to lend and borrow crypto.

Lenders earn interest by depositing digital assets into specially created liquidity pools. Borrowers can then use their crypto as collateral to take out a flash loan using this liquidity. AAVE is an Ehtereum-based crypto token and the native governance token of the Aave protocol. Holders of AAVE can discuss and vote on proposals that affect the direction of the project.

The token has 3 primary roles within the platform:

1. Governance (AAVE can be used to vote and decide on the protocol’s upgrade via Aave Improvement Proposals (AIPs).)
2. Incentives (AAVE can be staked within the protocol, and the users can earn the protocol’s staking rewards and fees. There are two ways to stake: (1) Stake AAVE and earn rewards in AAVE or (2) Stake Balancer Pool Token (BPT) and earn AAVE, BAL, and trading fees from Balancer.)
3. Mitigation tool (In the event of associated shortfalls, the staked AAVE will act as insurance to cover the deficit. For example, your staked assets will be slashed up to 30% when Aave protocol is in a deficit state for the liquidity providers.)

## 32.2. Description of the Protocol from Shariah Point of View:

The protocol supports a non shariah compliant activity by allowing interest based loans to be executed on its platform. Although, on the face of it,  the token can be used for halal purposes, to trade and hold it, would amount to assisting in sin, due to the nature of the business.

## 32.3. Shariah Opinion of the Protocol:

It is not permissible to trade AAVE tokens.

# 33. Name of the Protocol: Loopring

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| --- | --- |
| Name of the Token: | Loopring (LRC) |
| CoinGecko Link: | https://www.coingecko.com/en/coins/loopring |
| CoinMarketCap Link: | https://coinmarketcap.com/currencies/loopring/ |
| Official Website: | https://loopring.org/#/ |
| Whitepaper Link: | https://github.com/Loopring/protocols/blob/master/packages/loopring\_v3/DESIGN.md |
| Initial Assessment | Mufti Billal |
| Reviewer | Dr Farrukh Habib |

## 33.1. Main Function of the Protocol:

Loopring is a program designed to work on top of Ethereum’s blockchain (a layer 1, or base, blockchain). This means that Loopring seeks to make the experience of using Ethereum faster by processing elements of Ethereum transactions on its own network. The purpose of the protocol is to become a hybrid ecosystem. Among other things, it aims to facilitate centralized order-matching exchanges with decentralized on-chain order settlement exchanges.

The protocol relies on the ring miners to fulfill the necessary tasks. Ring miners together with order rings help execute orders in exchange for rewards. Miners receive rewards paid as feed by traders or the margins for an order.

## 33.2. Description of the Protocol from Shariah Point of View:

Loopring’s aim is to facilitate transactions between parties, whether they are compliant or not with shariah. The LRC token powers the ecosystem and has 5 identified use cases:

1. Fees for Ring Miners/Relayers.
2. To participate in DAO governance activities and proposals.
3. Burned in LRC Burn Rate.
4. Lock up to run a DEX on Loopring.
5. DEX operators can stake to reduce fees on that DEX.

In this regard, LRC token acts mainly as a utility token.

## 33.3. Shariah Opinion of the Protocol:

The platform is a generic platform and does not differentiate between halal and haram activities. The token does not seem to act as a medium of exchange and is relatively restricted to providing utilities. Therefore, the protocol and the token can be seen as shariah compliant.

# 34. Name of the Protocol: Polygon

|  |  |
| --- | --- |
| Name of the Token: | Polygon (MATIC) |
| CoinGecko Link: | https://www.coingecko.com/en/coins/polygon |
| CoinMarketCap Link: | https://coinmarketcap.com/currencies/polygon/ |
| Official Website: | https://polygon.technology/ |
| Whitepaper Link: | https://polygon.technology/papers/ |
| Initial Assessment | Mufti Billal |
| Reviewer | Dr Farrukh Habib |

## 34.1. Main Function of the Protocol:

At the center of Polygon’s vision is Ethereum, a platform that is home to a range of decentralized applications, ones where you can join virtual worlds, play games, buy art, and participate in a range of financial services. However, this much activity on its blockchain has rendered Ethereum almost unusable, as the cost of transmission is rising and traffic is becoming clogged.

Polygon bills itself as a layer-2 network, meaning it acts as an add-on layer to Ethereum that does not seek to change the original blockchain layer. Like its geometric namesake, Polygon has many sides, shapes, and uses and promises a simpler framework for building interconnected networks. Polygon wants to help Ethereum expand in size, security, efficiency, and usefulness and seeks to spur developers to bring enticing products to market all the quicker.

MATIC is the utility token of the Polygon network and is used for securing the chain through staking, participating in network governance and as a unit of payment for transaction fees on the network. Users can earn MATIC tokens by providing computational resources and services to the Polygon network. This can be done by validating transactions or for executing smart contracts on the network.

Additionally, by owning and staking MATIC, users gain the ability to vote on network upgrades, with each vote being proportional to the amount of MATIC cryptocurrency they stake.

## 34.2. Description of the Protocol from Shariah Point of View:

Polygon is similar to Loopring and it's a generic platform with the aim of enhancing dApps built on Ethereum.

## 34.3. Shariah Opinion of the Protocol:

The platform is a generic platform and can be used for various activities. MATIC token is a hybrid token and because of its nature as a medium of exchange, it can be considered as permissible to trade.

# 35. Name of the Protocol: Avalanche (AVAX)

|  |  |
| --- | --- |
| Name of the Token: | Avalanche (AVAX) |
| CoinGecko Link: | https://www.coingecko.com/en/coins/avalanche |
| CoinMarketCap Link: | https://coinmarketcap.com/currencies/avalanche/ |
| Official Website: | <https://www.avax.network/>  <https://www.avalabs.org/> |
| Whitepaper Link: | https://www.avalabs.org/whitepapers |
| Initial Assessment | Dr Farrukh Habib |
| Reviewer | Mufti Billal Omarjee |

## 35.1. Main Function of the Protocol and Token:

Avalanche is a high throughput smart contract blockchain platform. Validators secure the network through a proof-of-stake consensus protocol. It is said to be fast, low cost, and environmentally friendly. It is a layer one blockchain that functions as a platform for decentralized applications and custom blockchain networks. In that sense, it is similar to the Ethereum network.

It offers a transaction output of up to 6,500 transactions per second while not compromising scalability. It aims to do so by having three individual blockchains: the X-Chain, C-Chain and P-Chain. Each chain has a distinct purpose, so not all nodes validate all transactions. Avalanche blockchains even use different consensus mechanisms based on their use cases. It also uses bridges to connect with Ethereum.

* **The Exchange Chain (X-Chain)** is employed to create and exchange the native AVAX tokens and other assets. Similar to the ERC-20 standard on Ethereum, these tokens follow a set of standardized rules. It uses the Avalanche consensus mechanism.
* **The Contract Chain (C-Chain)** hosts smart contracts and decentralized applications. It has its own Avalanche Virtual Machine, similar to the Ethereum Virtual Machine, allowing developers to fork EVM-compatible DApps. It uses the Snowman consensus mechanism.
* **The Platform Chain (P-Chain)** coordinates network validators, tracks active subnets and enables the creation of new subnets. Subnets are sets of validators, sort of like a validator cartel. Each subnet can be validating several blockchains, but a blockchain can only be validated by one subnet. It also uses the Snowman consensus mechanism.

$AVAX is the native token of Avalanche. It is a hard-capped, scarce asset that is used to pay for fees, secure the platform through staking, and provide a basic unit of account between the multiple subnets created on Avalanche. Fees are not paid to any specific validator. Instead, they are burned, thus increasing scarcity of the $AVAX.

## 35.2. Shariah Description of the Protocol and Token:

AVAX is a decentralized open-source blockchain system. It works as a platform for numerous other blockchain projects, as well as for the execution of decentralized smart contracts. In this way, it is a shariah neutral platform which can be used for mixed purposes.

$AVAX is a payment token that is used: (1) to pay gas at the platform, (2) to secure the network through staking, and (3) to serve as a unit of account. In this way, the native cryptocurrency of the platform, $AVAX, also seems to be shariah neutral.

## 35.3. Shariah Opinion of the Protocol and Token:

Based on the analysis, AVAX platform and $AVAX token can be considered shariah compliant.

# 36. Name of the Protocol: Wrapped AVAX (WAVAX)

|  |  |
| --- | --- |
| Name of the Token: | Wrapped AVAX (WAVAX) |
| CoinGecko Link: | https://www.coingecko.com/en/coins/wrapped-avax |
| CoinMarketCap Link: | https://coinmarketcap.com/currencies/wavax/ |
| Official Website: | <https://www.avax.network/>  <https://www.avalabs.org/> |
| Whitepaper Link: | https://www.avalabs.org/whitepapers |
| Initial Assessment | Dr Farrukh Habib |
| Reviewer | Mufti Billal Omarjee |

## 36.1. Main Function of the Protocol and Token:

The underlying platform of Wrapped AVAX (WAVAX) is Avalanche, which is a high throughput smart contract blockchain platform. Validators secure the network through a proof-of-stake consensus protocol. It is said to be fast, low cost, and environmentally friendly. It is a layer one blockchain that functions as a platform for decentralized applications and custom blockchain networks. In that sense, it is similar to the Ethereum network.

Avalanche’s native token $AVAX conforms to ARC20 token standard. However, if someone wants to transfer AVAX to Ethereum blockchain using a bridge then the token needs to be “wrapped”. It would become Wrapped AVAX (WAVAX), which is a token that represents AVAX 1:1 and conforms to the ERC20. It allows for increased functionality across any application that handles ERC20 tokens. You can always convert your WAVAX to AVAX 1:1 and vice versa.

In order to use AVAX on the Ethereum network, you will first need to wrap it, to WAVAX, before sending it across the Avalanche-Ethereum bridge.

## 36.2. Shariah Description of the Protocol and Token:

A wrapped token is completely dependent on the underlying token in its nature, price, objectives, and functions. The only difference is that it can be used on a different blockchain platform. WAVAX would take up the same shariah description of AVAX.

## 36.3. Shariah Opinion of the Protocol and Token:

Since AVAX is shariah compliant, WAVAX can be considered as shariah compliant as well.

# 37. Name of the Protocol: Pangolin (PNG)

|  |  |
| --- | --- |
| Name of the Token: | Pangolin (PNG) |
| CoinGecko Link: | https://www.coingecko.com/en/coins/pangolin |
| CoinMarketCap Link: | https://coinmarketcap.com/currencies/pangolin/ |
| Official Website: | https://pangolin.exchange/ |
| Whitepaper Link: | https://docs.pangolin.exchange/ |
| Initial Assessment | Dr Farrukh Habib |
| Reviewer | Mufti Billal Omarjee |

## 37.1. Main Function of the Protocol and Token:

Pangolin is a decentralized exchange (DEX) which runs on Avalanche, for Avalanche and Ethereum assets with fast settlement, low transaction fees, and a democratic distribution. It uses the same automated market-making (AMM) model as Uniswap.

Pangolin aims to finalize trades quickly and cheaply. Since Pangolin is built on Avalanche, it enables users to swap assets while the transactions can be finalized within a fraction of a second. The transaction fees can be as low as a few cents.

It features a native governance token called PNG that is fully community distributed and can trade all tokens issued on Ethereum and Avalanche. It enables the community to drive the development of the product in full. Community-distributed token means it follows 100% community-focused token distribution model, meaning that all tokens are distributed directly to the community, without any allocations to team, advisors, investors, or insiders.

PNG allows the holders to decide on: (1) modifications to the liquidity pools, and (2) fee switch. The community will also have the ability to enable the Pangolin fee switch. This fee switch can divert .05% of all swap fees to a designated address. Swap fees will remain fixed at .30%, but liquidity providers will only receive at most .25% of these fees. This provides the community with the opportunity to acquire extra funds to support any significant community initiatives. The Pangolin fee switch is subject to a 90-day timelock delay and is disabled by default.

Pangolin allows token holders to add liquidity to pools or create their own liquidity pools. After token holders successfully create a pool or add liquidity to an existing pool, they receive PGL tokens. These tokens are a representation of their ownership in a pool. They may use those PGL tokens to earn the PNG governance token by depositing them into one of their participating pools.

After depositing their PGL tokens into a pool, they will accrue PNG tokens. Later they can claim their earned PNG tokens.

## 37.2. Shariah Description of the Protocol and Token:

Pangolin DEX is a mixed activity platform, where users can exchange/swap both halal and haram assets. If a user uses this platform to swap halal tokens then the usage is considered shariah compliant. Similarly, if a liquidity provider provides halal tokens or participates in only halal tokens pools, and receives PGL tokens for providing liquidity. It is considered shariah compliant. The fee collected as a profit will also be shariah compliant.

PNG token is a governance token that entitles its holder the right to vote and decide on taking certain actions. In this way, it is also considered shariah compliant.

## 37.3. Shariah Opinion of the Protocol and Token:

Pangolin DEX and PNG token can be considered shariah compliant, however, it does not mean that all the activities, i.e., liquidity providing, staking, liquidity mining, and other activities would automatically become shariah compliant. Moreover, not all pools or tokens available on the DEX can be considered as shariah compliant.

# 38. Name of the Protocol: USD Coin Avalanche Bridged (USDC.e)

|  |  |
| --- | --- |
| Name of the Token: | USD Coin Avalanche Bridged (USDC.e) |
| CoinGecko Link: | https://www.coingecko.com/en/coins/usd-coin-avalanche-bridged-usdc-e |
| CoinMarketCap Link: | https://coinmarketcap.com/currencies/usd-coin/ |
| Official Website: | https://www.centre.io/usdc |
| Whitepaper Link: | https://f.hubspotusercontent30.net/hubfs/9304636/PDF/centre-whitepaper.pdf |
| Initial Assessment | Dr Farrukh Habib |
| Reviewer | Mufti Billal Omarjee |

## 38.1. Main Function of the Protocol and Token:

### 38.1.1. What is USDC?

USDC.e is based on USDCoin. USD Coin (known by its ticker USDC) is a stablecoin that is pegged to the U.S. dollar on a 1:1 basis. Every unit of this cryptocurrency in circulation is backed up by $1 that is held in reserve, in a mix of cash and short-term U.S. Treasury bonds. The Centre consortium, which is behind the USDC, says it is issued by regulated financial institutions.

Overall, the goal of USDC is to create an ecosystem where USDC is accepted as a currency by as many wallets, exchanges, service providers and dApps as possible. The unique feature of USDC is transparency — and giving users the assurance that they will be able to withdraw 1 USDC and receive $1 in return without any issues. To this end, it says a major accounting firm is tasked with verifying the levels of cash that are held in reserve, and ensuring this matches up with the number of tokens in circulation.

It is like USDT, but with more transparency. Unlike USDT, Circle and Coinbase have also achieved regulatory compliance — and this has helped pave the way for international expansion. Both projects are also well-funded, giving the stablecoin certainty.

### 38.1.2. USDC on Other Blockchains, Like Avalanche

Recently (December 2021), Circle announced the launch of USDCoin (USDC) on Avalanche (“Avalanche USDC”), which is the native USDC token on the Avalanche blockchain (specifically, Avalanche C-Chain). Circle customers are able to mint native Avalanche USDC from the Circle Account and Circle APIs. Similar to other native USDC tokens on other blockchains, you can deposit Avalanche USDC back into a Circle Account and off-ramp to fiat currency seamlessly.

### 38.1.3. Avalanche Bridges and Tokens

Avalanche has introduced their new bridge called Avalanche Bridge (AB). It is replacing the existing Avalanche-Ethereum Bridge (AEB). The AEB is now deactivated and Avalanche has stopped the transfers across it. The users who have assets on the AEB can now migrate them to the AB and continue to use them on the applications on the Avalanche ecosystem.

The AB is expected to provide users with a better user experience, faster transactions and lower fees. Each Avalanche bridge now has its own unique token sets. Since Avalanche has deprecated the AEB tokens in favor of the AB tokens, they have decided to name AB tokens with a “.e” suffix.

### 38.1.4. What is USDC.e

As USDC on AEB has now become a token from this deprecated bridge, Avalanche has named the USDC tokens that are running on the new AB as “USDC.e”. Same goes with other assets (like USDT) on the AB.

USDC.e on Avalanche is a "bridged form of Ethereum USDC" that was bridged from the Ethereum blockchain via the Avalanche Bridge. For this reason, USDC.e is not the same as native USDC on Ethereum or Avalanche. Circle products do not support USDC.e. You cannot send USDC.e to a Circle deposit address. To elaborate, it is not possible to use USDC.e in the Circle APIs, nor deposit USDC.e into a Circle Account and off-ramp back to fiat currency.

You need to convert (“unbridge”) USDC.e into either USDC Ethereum (or USDC Avalanche?) before using it on the Circle platform. However, USDC.e can be directly used on Avalanche.

## 38.2. Shariah Description of the Protocol and Token:

USDC.e is like a wrapped token which is brought from Ethereum blockchain to Avalanche through “bridging”. Other than the technical aspect, it seems to be completely dependent on the underlying token in its nature, price, objectives, and functions. The only difference is that it can be used on a different blockchain platform. USDC.e would take up the same shariah description of USDC.

USDC.e is a form of currency which is backed by off chain dollar reserves. It is meant to be used as a digital payment system. All the shariah rulings of a currency are applicable on it.

## 38.3. Shariah Opinion of the Protocol and Token:

Depending on the shariah ruling of USDC, it can be safely opined that USDC.e is also shariah compliant.

# 39. Name of the Protocol: PancakeSwap (CAKE)

|  |  |
| --- | --- |
| Name of the Token: | PancakeSwap (CAKE) |
| CoinGecko Link: | https://www.coingecko.com/en/coins/pancakeswap |
| CoinMarketCap Link: | https://coinmarketcap.com/currencies/pancakeswap/ |
| Official Website: | https://pancakeswap.finance/ |
| Whitepaper Link: | https://docs.pancakeswap.finance/ |
| Initial Assessment | Dr Farrukh Habib |
| Reviewer | Mufti Billal Omarjee |

## 39.1. Main Function of the Protocol and Token:

PancakeSwap is an automated market maker (AMM) — a decentralized finance (DeFi) application that allows users to exchange tokens, provide liquidity via farming and earn fees in return. In other words, it is a decentralized exchange for swapping BEP20 tokens on Binance Smart Chain.

When users provide liquidity, they earn LP tokens. These LP tokens can later be used by the liquidity providers to reclaim their share of the pool, as well as a portion of the trading fees. PancakeSwap also allows users to farm additional tokens such as CAKE and SYRUP. On the farm, users can deposit LP tokens and get rewarded with CAKE.

CAKE is the governance token for PancakeSwap. The supply of CAKE is not hard-capped. Theoretically, CAKE’s supply is unlimited. Users can earn CAKE from Farms and Syrup Pools, win it in the lottery, or buy it on the exchange. The main uses of CAKE are:

* Stake it in Syrup Pools to earn free tokens - stake CAKE to earn tokens of other projects.
* Use it in Yield Farms to earn more CAKE - stake CAKE to earn more CAKE.
* Buy Lottery tickets in the PancakeSwap Lottery and pay with CAKE
* Participate in IFO (initial farm offering) Token Sales
* Create your Pancake Profile and mint NFTs
* Vote on proposals relating to the PancakeSwap ecosystem

## 39.2. Shariah Description of the Protocol and Token:

CAKE is mainly a governance token which means that it is based on a voting right. However, it is a hybrid token because it is also used for staking and to pay for lottery tickets. Through IFO, a new project gets the CAKE, PancakeSwap burns the participation fees CAKE, and the user gets the tokens. Therefore, the user will need CAKE to participate in the IFOs.

## 39.3. Shariah Opinion of the Protocol and Token:

PancakeSwap is a mixed activity DEX because some crypto assets are halal, and some are haram. Other than swapping, other activities on the DEX are also mixed.

As a governance and payment token, CAKE seems to be shariah compliant because there is no explicitly haram factor as part of it. Though, it is used for shariah non-compliant purposes, i.e., to buy lottery tickets, however, this can be seen as an external factor, and it is not the only use case of CAKE. Users can own CAKE and use it for halal transactions.

# 40. Name of the Protocol: Frax (FRAX)

|  |  |
| --- | --- |
| Name of the Token: | Frax (FRAX) |
| CoinGecko Link: | https://www.coingecko.com/en/coins/frax |
| CoinMarketCap Link: | https://coinmarketcap.com/currencies/frax/ |
| Official Website: | https://frax.finance/ |
| Whitepaper Link: | https://docs.frax.finance/overview |
| Initial Assessment | Dr Farrukh Habib |
| Reviewer | Mufti Billal Omarjee |

## 40.1. Main Function of the Protocol and Token:

Frax is a protocol for a decentralized on-chain monetary system. The Frax protocol is a two token system encompassing a stablecoin, Frax (FRAX), and a governance token, Frax Shares (FXS).

The stable coin (FRAX) is a currency token, and has parts of its supply backed by collateral and parts of the supply as algorithmic. The protocol also has a pool contract which holds USDC collateral. Pools can be added or removed with governance.

FRAX stablecoins can be minted by placing the appropriate amount of its constituent parts into the system. At genesis, FRAX is 100% collateralized, meaning that minting FRAX only requires placing collateral into the minting contract. During the fractional phase, minting FRAX requires placing the appropriate ratio of collateral and burning the ratio of Frax Shares (FXS). The ratio of collateralized and algorithmic depends on the market's pricing of the FRAX stablecoin. If FRAX is trading at above $1, the protocol decreases the collateral ratio. If FRAX is trading at under $1, the protocol increases the collateral ratio.

The supply of the FRAX stablecoin is dynamic and always changing to keep the price at $1 due to its fractional-algorithmic monetary policy. If the market price is above the price target of $1, then there is an arbitrage opportunity to mint tokens by placing $1 of value into the system per FRAX and sell the minted FRAX for above $1 in the open market. The difference is simply the proportion of FXS and collateral comprising the $1 of value. If the market price of FRAX is below the price range of $1, then there is an arbitrage opportunity to redeem FRAX tokens by purchasing cheaply on the open market and redeeming FRAX for $1 of value from the system. At all times, a user is able to redeem FRAX for $1 worth of value from the system. The difference is simply what proportion of the collateral and FXS is returned to the redeemer.

## 40.2. Shariah Description of the Protocol and Token:

FRAX is a payment/currency token that partially uses reserves of other on-chain stable coins, and partially uses algorithms to stabilize its price/value against USD. FRAX can be minted and redeemed from the system for $1 of value, allowing arbitrageurs to balance the demand and supply of FRAX in the open market. At all times in order to mint new FRAX a user must place $1 worth of value into the system.

However, it may not remain shariah compliant after the introduction of V2. The docs of Frax indicate that Frax can have multiple pools of collateral and multiple algorithmic token pools with weights, similar to Balancer. The protocol currently has USDC collateral pools and just 1 algorithmic token: FXS. In v2, we will release a second algorithmic token, the Frax Bond token (FXB) which represents pure debt with an interest rate attached.

## 40.3. Shariah Opinion of the Protocol and Token:

Given that USDT, USDC and other stable coins are considered as shariah compliant, FRAX also seems to be a shariah compliant payment token, because other stable coins are used as collateral. Moreover, FXS also seems to play its role in stabilizing the price of FRAX. FXS as a governance token also seems to be shariah compliant, so there is no shariah issue.

However, a fresh assessment would be needed when V2 is launched to check its shariah status again.

# 41. Name of the Protocol: Rai Reflex Index (RAI)

|  |  |
| --- | --- |
| Name of the Token: | Rai Reflex Index (RAI) |
| CoinGecko Link: | https://www.coingecko.com/en/coins/rai |
| CoinMarketCap Link: | https://coinmarketcap.com/currencies/rai/ |
| Official Website: | https://reflexer.finance/ |
| Whitepaper Link: | https://docs.reflexer.finance/ |
| Initial Assessment | Dr Farrukh Habib |
| Reviewer | Mufti Billal Omarjee |

## 41.1. Main Function of the Protocol and Token:

Reflexer is a smart contract lending platform that allows anyone to use their crypto collateral and take out loans in the form of RAI. It was founded by Reflexer Labs in mid 2020 as an initiative to introduce control theory in the crypto space and revive the old vision that was supposed to be implemented for DAI: build a stable currency with no peg and managed by an on-chain, smart contract based controller.

RAI claims that DAI was not supposed to be pegged to anything. Rather, it was meant to have a floating target price (aka moving peg) that changes according to what the market price of DAI is on secondary markets. The simplest way to describe the mechanism is that the target price would start to go up when the market price of DAI was below it and, in the scenario where the market price was above the target, the target price would start to go down. This would compel market participants to bring DAI’s market price back and close to the target price. This whole mechanism is now the main driving force behind RAI.

Rai is a kind of stable coin. It is a non-pegged, ETH backed stable asset built by Reflexer. It is the first asset of its kind that, instead of being pegged to a specific target such as the USD, it freely floats while it is being influenced by market forces. RAI’s mission is to become a crypto native and governance minimized stable asset that is detached from fiat. It is a unique stable currency that has an intrinsic rate which can be either positive or negative. Holders and traders can take advantage of this rate while at the same time stabilize RAI.

## 41.2. Shariah Description of the Protocol and Token:

Reflexer has a complex mechanism to achieve stability and also has a complicated issuance system for RAI tokens. However, it is understood that the users first need to provide collateral and take a loan in the form of RAI, that is how RAI is issued. It is an upshot of DAI protocol with sort of an improvement regarding pegging.

Minting Rai incurs debt as well as exposes the minter to the effects of the redemption rate, which is the rate at which Rai is de or revalued. RAI works similarly to Multi Collateral Dai: every collateral type has its own specific stability fee. Stability fees accrue in the protocol’s balance sheet and from there, governance or an autonomous smart contract can decide how they are used. Furthermore, it is suspected that the debt-based issuance of RAI would involve interest or Riba. Although it is not directly stated in the docs, the main website clearly mentions: “*RAI is an ETH backed stable asset. You can use it to take out loans against your ETH at a small interest rate.*”

## 41.3. Shariah Opinion of the Protocol and Token:

It seems that the issuance of RAI token involves interest-based collateralized debt, which is not a halal transaction. Therefore, RAI does not seem to be halal.

# 42​​. Name of the Protocol: Curve DAO Token (CRV)

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| --- | --- |
| Name of the Token: | Curve DAO Token (CRV) |
| CoinGecko Link: | https://www.coingecko.com/en/coins/curve-dao-token |
| CoinMarketCap Link: | https://coinmarketcap.com/currencies/curve-dao-token/ |
| Official Website: | https://curve.fi/ |
| Whitepaper Link: | https://curve.fi/files/CurveDAO.pdf |
| Initial Assessment | Dr Farrukh Habib |
| Reviewer | Mufti Billal Omarjee |

## 42.1. Main Function of the Protocol and Token:

Curve is a decentralized exchange for stablecoins that uses an automated market maker (AMM) and hence uses liquidity pools. Similar to Uniswap, Curve Finance is an AMM-based DEX; but unlike Uniswap, its main focus is only to swap between assets that are supposed to have the same value (stablecoin). However, Curve V2 can also offer swaps among ETH, BTC, and other non-stable coins.

Any transaction on every Curve pool generates fees, a portion of which accrue to the liquidity providers who have provided the liquidity in the pool. There is an extra reward offered by Curve on top of the fees. The LP tokens entitle liquidity providers to earn bonus CRV emissions. Some pools (Compound, PAX, Y, BUSD) also earn interest from lending protocols, because they have yield-bearing tokens as liquidity. Behind the scenes, those four pools also use lending protocols (like Compound or AAVE) to help generate more interest for liquidity providers.

Curve Finance also supports yield-bearing tokens. For example, it has collaborated with Yearn Finance to release yUSD pools that consisted of yDAI, yUSDT, yUSDC and yTUSD. Users that participated in this pool will not only have yield from the underlying yield-bearing tokens, but also the swap fees generated by the Curve pool. Including the yield farming rewards in terms of CRV tokens, liquidity providers of the pool actually have three sources of yield.

Another feature of the Curve protocol is MetaPools, which allows users to swap LP tokens of pool with another token (e.g. BUSD and 3Pool LP tokens).

Curve launched a decentralized autonomous organization (DAO), with CRV as its in-house token. CRV token is a governance and utility token for Curve. The main purposes of the CRV token are to incentivize liquidity providers on the Curve Finance platform as well as to get as many users involved as possible in the governance of the protocol.

Currently CRV has three main uses: voting, staking and boosting. Those three things will require you to lock (stake) your CRV and acquire veCRV. veCRV stands for vote-escrowed CRV, it is simply CRV locked for a period of time. The longer you lock CRV for, the more veCRV you receive. veCRV is not a token, but an arbitrary number or a coefficient to show the voting power.

It has implemented a complex time-based staking system to convert CRV to veCRV, where veCRV is an internal token (non-tradable without monetary value) intended for governance purpose and has a right to claim the cash flows generated by the protocol.

Staking (trading fee): A 50% admin fee on all trading fees is collected by the Curve Protocol. Those fees are collected and used to buy 3CRV, the LP token for the TriPool, which are then distributed to veCRV holders.

Boosting: Vote locking CRV allows you to acquire voting power to participate in the DAO and earn a boost of up to 2.5x on the liquidity you are providing on Curve.

Voting: Once CRV holders vote-lock their veCRV, they can start voting on various DAO proposals and pool parameters.

In a nutshell, Curve users provide liquidity in different pools, and collect a portion of fees in the form of the same tokens as in the pool. The users can then stake LP tokens to receive CRV. Curve finance protocol converts its portion of fees collected from different pools into stablecoins and provides liquidity with those stablecoins in certain pools (3pools, 2pools, etc.), ​​​​and the fee generated is then distributed to the users who stake LP tokens. Users can further stake CRV to acquire veCRV and participate in the governance process and also get a reward boost on their fees.

## 42.2. Shariah Description of the Protocol and Token:

CRV is mainly a governance and utility token of the Curve protocol. It is used for voting, staking, and boosting rewards. In this sense, there seems to be no shariah issue. Although there are few shariah issues. For example, the presence of lending pools, and the possibility of earning interest may pose some shariah issues. Moreover, it also has Y-pools that are connected with Compound, Yearn.Finance and other interest-based pools. It also facilitates transactions through yield-bearing tokens, and users can also earn interest on those yield-bearing tokens. These factors may indirectly affect the value of the CRV token, ken, the extent of which is unknown. However, since the CRV token or its value is not directly related to those activities, CRV as merely a governance and utility token can be considered as a shariah compliant token. But, it does not mean that the Curve finance protocol or all other activities can be considered shariah compliant.

All pools earn profit from trading fees, some pools also earn interest from lending and there are also some pools with extra incentives. However, note that lending pools are small in number.

## 42.3. Shariah Opinion of the Protocol and Token:

The shariah status of Curve finance protocol is mixed because some activities are halal and some are haram. However, CRV as a governance and utility token is not directly related to those activities, rather it seeks its value from the whole system. The main factor for the value of CRV is to hold CRV for boosting the pools’ rewards through vote-locking ((veCRV). Its value is also determined by market factors. Therefore, CRV as a token can be considered shariah compliant, if it is used in shariah-compliant activities and transactions.

# 43. Name of the Protocol: Convex Finance (CVX)

|  |  |
| --- | --- |
| Name of the Token: | Convex Finance (CVX) |
| CoinGecko Link: | https://www.coingecko.com/en/coins/convex-finance |
| CoinMarketCap Link: | https://coinmarketcap.com/currencies/convex-finance/ |
| Official Website: | https://www.convexfinance.com/ |
| Whitepaper Link: | https://docs.convexfinance.com/convexfinance/ |
| Initial Assessment | Dr Farrukh Habib |
| Reviewer | Mufti Billal Omarjee |

## 43.1. Main Function of the Protocol and Token:

In Curve Finance protocol (CRV), users can vote-lock (voting for governance) or stake their CRV tokens to receive veCRV. The holders of veCRV receive 3CRV (the LP token for the TriPool) as an incentive. The veCRV holders can also boost their fees up to 2.5x on the liquidity they provide on Curve, along with the voting right. However, the locking/staking of CRV tokens at Curve has fixed duration, i.e. 1 week, 1 month, 6 months, 1 year, and 4 years. Hence, making it sticky.

Convex Finance tries to solve this problem. Convex is a DeFi protocol that allows Curve liquidity providers to earn a share of trading fees on Curve without directly staking liquidity there. In other words, Convex allows Curve LPs to earn trading fees and claim boosted CRV without locking CRV on the Curve protocol themselves. Instead, LPs can stake with Convex and receive boosted CRV and liquidity mining rewards. This provides CRV stakers a flexible duration (without time-lock).

CRV rewards can go as high as 2.5X of the initial rewards, but the higher the liquidity deposited, the more difficult it is to attain the maximum rewards. In fact, it is nearly impossible for any individual or single party to stake enough liquidity at Curve to attain the maximum boost, which is where Convex Finance comes in. Convex acts as an intermediary that pools the assets of individual stakers and benefits from their aggregated liquidity. Even low-level investors can stake their Curve Finance LPs with Convex and receive boosted rewards that would otherwise not be attainable. By staking with Convex, they receive:

* A portion of the transaction fee of Convex itself in CRV
* A share of the Curve trading fees (3CRV)
* liquid cvxCRV allowing anyone to exit their staked CRV position
* Receive CVX tokens
* Claim veCRV airdrops

CRV stakers and liquidity providers also receive liquidity mining rewards in the form of CVX. Convex charges performance fees which are used to pay for gas and distributed to CVX stakers.

CVX is the native platform token for Convex. It is a utility (staking) and governance token. CVX is rewarded to CRV stakers and Curve liquidity pools pro-rata to CRV generated by the platform. If a user is in a high CRV rewards liquidity pool he will receive more CVX for his contribution. CVX is also distributed to cvxCRV/CRV and CVX/ETH LPs that stake their LP tokens on the Convex platform through a MasterChef staking rewards contract.

**Staking:** CVX can be staked on Convex Finance to earn a share of Curve LP's CRV earnings. Those earnings are locked in veCRV and tokenized as cvxCRV and given to the CVX stakers. In this way, CVX stakers can earn Curve LP’s RV portion of the fees as cvxCRV (tokenized veCRV). Stakers of CVX also receive additional fees from Curve and FRAX finance LPs.

**Voting:** CVX is used for voting on how Convex Finance allocates its veCRV towards Curve.fi gauge weight votes. Users must vote-lock their CVX tokens in order to participate. The Curve system allows veCRV holders to vote how CRV inflation is distributed by assigning weights to each pool's "gauge". As a holder of veCRV, Convex Finance can participate in these voting procedures, and these voting rights are passed to vote locked CVX holders.

## 43.2. Shariah Description of the Protocol and Token:

CVX is mainly a governance and utility token of the Convex protocol. It is used for voting, staking, and boosting rewards. In this sense, there seems to be no shariah issue. However, the protocol seems to be a secondary layer on top of the Curve protocol. This layer has been built to address the inherent issues with the Curve protocol. In this sense, it also entails the same shariah issues as the Curve protocol has.

However, since the CVX token or its value is not directly related to those shariah non-compliant activities, CVX as merely a governance and utility token can be considered as a shariah compliant token. But, it does not mean that the Convex finance protocol as a whole or all other activities can be considered shariah compliant.

## 43.3. Shariah Opinion of the Protocol and Token:

The shariah status of the Convex protocol is mixed because of two reasons. (1) Some activities on the underlying protocol (Curve Finance) are re halal and some are haram. (2) Besides the token, other activities are too complex to be evaluated in this report. However, CVX as a governance and utility token is not directly related to those activities, rather it seeks its value from the whole system. The main factor for the value of CVX is to hold CVX for boosting the pools’ rewards through veCRV. Its value is also determined by market factors. Therefore, CVX as a token can be considered shariah compliant, if it is used in shariah-compliant activities and transactions.

# 44.  Name of the Protocol: UMA (UMA)

|  |  |
| --- | --- |
| Name of the Token: | UMA (UMA) |
| CoinGecko Link: | https://www.coingecko.com/en/coins/uma |
| CoinMarketCap Link: | https://coinmarketcap.com/currencies/uma/ |
| Official Website: | https://umaproject.org/ |
| Official Documents Link: | https://docs.umaproject.org/ |
| Initial Assessment | Dr Farrukh Habib |
| Reviewer | Mufti Billal Omarjee |

## 44.1. Main Function of the Protocol and Token:

UMA is an optimistic oracle and dispute arbitration system that securely allows for arbitrary types of data to be brought on-chain. An optimistic oracle serves data to smart contracts using a "true unless disputed" escalation game.

### What is UMA and Optimistic Oracle?

Oracles are a key part of blockchain infrastructure. They enable communication between the external world and on-chain environments in a trustless manner. Oracles are vital for many parts of the blockchain industry including decentralized finance (DeFi) and Web3 applications.

An optimistic oracle (OO) like UMA's uses a “true unless disputed” pattern, with a tokenholder vote to resolve disputes. Anyone can propose an answer to a data request, and it is accepted as true if it is not disputed during a verification period. The “optimistic” design differs from a price-feed oracle, where prices are streamed on-chain and are instantly final.

This optimistic oracle (OO) design concept has been in development since 2014, when Vitalik first published on the matter. There have been several iterations over the years since then. The optimistic design pattern introduces the opportunity for human intelligence to weigh in. This is important for Web3 projects as they require arbitrary data that is not always possible to turn into code.

Today, the OO provides flexible, unique dispute resolution involving any kind of question or data with human input, as compared to price feed oracles, which can only push regular price updates onto chains.

### How Does UMA Work?

UMA's Optimistic Oracle allows contracts to quickly request and receive data information. The Optimistic Oracle acts as a generalized escalation game between contracts that initiate a price request and UMA's dispute resolution system known as the Data Verification Mechanism (DVM). Prices proposed by the Optimistic Oracle will not be sent to the DVM unless it is disputed. This enables contracts to obtain price information within any pre-defined length of time without the need to have the price of an asset written on-chain.

If a dispute is raised, a request is sent to the DVM. All contracts built on UMA use the DVM as a backstop to resolve disputes. Disputes sent to the DVM will be resolved 48 hours after UMA tokenholders vote on the price of the asset at a given time.

UMA’s oracle system provides data for projects including a cross-chain bridge, insurance protocols, custom derivatives and prediction markets. UMA's oracle is used to create many other types of products and protocols. The Across bridge, Polymarket prediction markets, and Outcome.Finance DAO tools are all secured by UMA’s optimistic oracle.

### Voting:

The UMA voting process requires tokenholders to commit and reveal their votes in two separate stages. Each stage is open for 24 hours, so each voting period is 48 hours. Examples of governance proposals include:

* Approving new price identifiers and collateral currencies
* Price requests and disputes
* Upgrading the core DVM protocol and / or modify DVM parameters
* Registering and de-registering contract templates
* Shutting down contract instantiations (in rare circumstances)

### UMA Token:

The UMA token is primarily a governance token used to contribute to UMA protocol decisions, such as voting on UMA Improvement Proposals (UMIPs), price requests, and disputes made to UMA's Data Verification Mechanism (DVM).

All UMA token owners can participate in UMA’s optimistic oracle. UMA’s token is built on Ethereum that can be held in wallets like Metamask, Trezor, or Ledger, which must be connected to the UMA voting Dapp to enable voting.

UMA’s community of token holders provide the human component, as voters, for the OO's final resolution on disputes or queries. Tokens are also used to vote on protocol upgrades and UMA DAO funds allocations. The strength of the token will track with the strength and adoption of the UMA ecosystem as a whole. Active and accurate voters earn a healthy yield for their participation.

## 44.2. Shariah Description of the Protocol and Token:

UMA is a protocol that provides a method and service of data verification and data insertion on blockchain. This data then can be used to develop different products and services in the web3 and Defi space.

UMA token is a governance token where the token holders can vote for any dispute about verification and insertion of data, and get incentivize. They can also vote for further improvements and upgrades in the system. In this way, UMA token holders ensure that the platform remains secured.

## 44.3. Shariah Opinion of the Protocol and Token:

The purpose UMA platform serves and the service it offers seem to be shariah-compliant. The UMA token, as a governance token, also seem to be shariah-compliant. However, it does not mean that staking and voting of UMA is also shariah-compliant automatically. These processes should be evaluated separately. Moreover, any product or service based on UMA’s Optimistic Oracle should also be independently reviewed.

# 45. Name of the Protocol: Trust Wallet (TWT)

|  |  |
| --- | --- |
| Name of the Token: | Trust Wallet (TWT) |
| CoinGecko Link: | https://www.coingecko.com/en/coins/trust-wallet-token |
| CoinMarketCap Link: | https://coinmarketcap.com/currencies/trust-wallet-token/ |
| Official Website: | https://trustwallet.com/ |
| Whitepaper Link: |  |
| Initial Assessment | Mufti Billal |
| Reviewer | Dr Farrukh Habib |

## 45.1. Main Function of the Protocol and Token:

Trust Wallet  is a mobile cryptocurrency wallet that supports dozens of popular native assets, in addition to popular tokens on the Ethereum, Binance and TRON blockchains. Its native token, Trust Wallet Token (TWT) is a utility token that will be used to incentivize all Trust Wallet users.

Holders of TWT tokens unlock a variety of benefits when using Trust Wallet, including discounts on in-app cryptocurrency purchases and on the use of decentralized exchange (DEX) services. TWT holders can also participate in the governance of Trust Wallet and can vote on Trust Wallet update proposals, helping to shape the development of the app.

## 45.2. Shariah Description of the Protocol and Token:

Trust Wallet Token is a utility token designed to provide additional value to users of the Trust Wallet mobile app — it does not have any utility outside of the Trust Wallet ecosystem. TWT was minted and distributed for free. The price of the token depends on the users who trade them on exchanges. The holders of the token decide on what is its inherent value. You can send them to your friend, or you can even trade them with any other asset.

TWT can be considered as a form of hybrid token from a shariah perspective.

## 45.3. Shariah Opinion of the Protocol and Token:

Trust Wallet is mainly used as a wallet to hold any type of cryptos whether they are halal or haram. And its token can also be used for halal and haram purposes, in that sense they are both generic. There is nothing to suggest that the token is impermissible if used in a shariah compliant manner

# 46.  Name of the Protocol: 1inch Network (1INCH)

|  |  |
| --- | --- |
| Name of the Token: | 1inch Network (1INCH) |
| CoinGecko Link: | https://www.coingecko.com/en/coins/1inch |
| CoinMarketCap Link: | https://coinmarketcap.com/currencies/1inch/ |
| Official Website: | https://1inch.io/ |
| Official Documents Link: | https://docs.1inch.io/ |
| Initial Assessment | Dr Farrukh Habib |
| Reviewer | Mufti Billal Omarjee |

## 46.1. Main Function of the Protocol and Token:

The 1inch Network's first protocol is a decentralized exchange (DEX) aggregator solution that searches deals across multiple liquidity sources, offering users better rates than any individual exchange. 1INCH performs this function through Aggregation Protocol which incorporates the Pathfinder algorithm for finding the best paths across over 240+ liquidity sources on Ethereum, BNB Chain, Polygon, Avalanche, Optimistic Ethereum, Arbitrum, Fantom and Gnosis Chain. 1INCH has another protocol which is Liquidity Protocol. It is based on automated market making (AMM). Overall, 1INCH consists of different protocols and products, which are:

### Aggregation Protocol:

The 1inch Aggregation Protocol facilitates cost-efficient and secure swap transactions across multiple liquidity sources.

### Limit Order Protocol:

It offers limit order functionality for 1INCH, for instance, stop loss and trailing stop orders. This protocol can also be used for auctions. For instance, Maker DAO’s Liquidation 2.0 Module is based on the auction model, and users could take part in Maker DAO auctions, using the 1inch Limit Order Protocol.

### Liquidity Protocol:

1INCH also has liquidity protocol which is based on AMM. To earn from their crypto assets' holdings, users can provide liquidity to 1inch pools. Liquidity providers collect rewards on assets locked in pools and extra yield farming rewards in 1INCH tokens. To participate in liquidity mining programs and earn 1INCH tokens, a user needs to be a liquidity provider to one of the 1inch pools supported by the program.

### 1inch Earn:

It is a derivative-based product offering liquidity providers APYs. 1inch Earn offers liquidity providers APYs through the use of capital. It is a kind of staking program, where stakers earn APR as long as the 1INCH token price stays below the strike price. Each week the pools are rebalanced and strike price might be updated.

### 1INCH Wallet:

The 1inch Wallet is a multichain mobile platform that provides an easy-to-navigate interface with secure storing, transaction, and staking capabilities. With this wallet, users can:

* Buy crypto with a bank card using 1INCH’s partner fiat gateway providers,
* Store/keep cryptos,
* Transfer crypto in multiple blockchain networks,
* Swap tokens,
* Stake 1INCH to participate in network governance and be eligible for gas costs refunds.

### 1INCH Token:  The 1inch Network's governance token 1INCH is used to vote on protocol parameters under the decentralized autonomous organization (DAO) model. The 1INCH token is the governance and utility token of the 1inch Network. The token is applied in different capacities in the two existing protocols and will be used in the tokenomics of all new protocols released by the 1inch Network. 1INCH is a multichain token, currently available on Ethereum and on BNB Chain over a bridge.

* Currently, the main application of 1INCH as a utility token is in the 1inch Liquidity Protocol where it is used as a connector to achieve high-efficiency routing.
* The 1INCH token is used to govern all of the 1inch Network's current and future protocols. It is utilized in the governance modules of the 1inch Aggregation Protocol and the 1inch Liquidity Protocol.

## 46.2. Shariah Description of the Protocol and Token:

1INCH as DEX aggregator has mixed activities because it allows shariah-compliant and non-compliant transactions both. Limit order protocol seems to be a shariah neutral tool because it adds other features and functionality for trading. Liquidity protocol is also mixed activity because it facilitates all sorts of pools that consist of halal/haram pairs. 1INCH Earn does not seem to be shariah-compliant. The wallet is an interface/gateway to access the features of 1INCH.

1INCH token is a utility and governance token of the protocol. Users can stake 1INCH token to participate in the governance and get incentivized through rewards. Moreover, users can use 1INCH to enjoy reduced gas fee.

## 46.3. Shariah Opinion of the Protocol and Token:

Overall, 1INCH Aggregation Protocol and Limit Order Protocol can be used for shariah-compliant transactions and swaps. Liquidity Protocol can also be used for shariah-compliant pools. Similarly, the 1INCH wallet also has shariah-compliant usage. However, 1INCH Earn does not seem to be shariah-compliant based on the information available.

Based on the above understanding and its nature, 1INCH token can also be considered as shariah-compliant.

# 47.  Name of the Protocol: PAX Gold (PAXG)

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| --- | --- |
| Name of the Token: | PAX Gold (PAXG) |
| CoinGecko Link: | https://www.coingecko.com/en/coins/pax-gold |
| CoinMarketCap Link: | https://coinmarketcap.com/currencies/pax-gold/ |
| Official Website: | https://paxos.com/paxgold/ |
| Official Documents Link: | https://paxos.com/wp-content/uploads/2019/09/PAX-Gold-Whitepaper.pdf |
| Initial Assessment | Dr Farrukh Habib |
| Reviewer | Mufti Billal Omarjee |

## 47.1. Main Function of the Protocol and Token:

PAX Gold (PAXG) is an asset-backed token where one token should represent one troy ounce of a London Good Delivery gold bar, stored in vault facilities. Anyone who owns PAXG has ownership rights to that gold under the custody of Paxos Trust Company. Since PAXG represents physical gold, its value is tied directly to the real-time market value of that physical gold.

PAXG gives customers the benefits of actual physical ownership of specific gold bars with the speed and mobility of a digital asset. Customers are able to have fractional ownership of physical bars. On the Paxos platform, customers can convert their tokens to allocated gold, unallocated gold, or fiat currency (and vice versa) quickly and efficiently, reducing their exposure to settlement risk. PAXG is also available for trading on Paxos’ itBit exchange. PAXG is also available on other crypto-asset exchanges, wallets, lending platforms, and elsewhere within the crypto ecosystem.

At any time, PAXG holders can look up the serial number, value, and physical characteristics of their vaulted gold just by entering their Ethereum wallet address on the PAXG lookup tool on Paxos.com/paxgold.

## 47.2. Shariah Description of the Protocol and Token:

PAXG is a crypto token on ETH blockchain with ERC-20 standard. The token is fully backed by physical gold. When a user buys PAXG with another crypto asset, the transaction takes place instantly, and possession also happens within the session of the transaction.

## 47.3. Shariah Opinion of the Protocol and Token:

PAXG is shariah-compliant. It can be exchanged with other shariah compliant crypto assets. However, since PAXG represents gold bullion, it cannot be exchanged with another gold-backed token other than at an equal price regardless of the quality of the gold backing it. In other words, PAXG cannot be sold for another gold-backed token either at a premium or a discount.

# 48. Name of the Protocol: NEAR

|  |  |
| --- | --- |
| Name of the Token: | NEAR |
| CoinGecko Link: | https://www.coingecko.com/en/coins/near |
| CoinMarketCap Link: | https://coinmarketcap.com/currencies/near-protocol/ |
| Official Website: | https://near.org/ |
| Official Documentation Link: | [https://near.org/papers/the-official-near-white-paper/?\_gl=1\*1gyjsns\*\_up\*MQ..\*\_ga\*MjEyNzAxMjc4NS4xNjc1MTgzOTYy\*\_ga\_9GWCXQJ62J\*MTY3NTE4Mzk1OS4xLjAuMTY3NTE4Mzk1OS4wLjAuMA](https://near.org/papers/the-official-near-white-paper/?_gl=1*1gyjsns*_up*MQ..*_ga*MjEyNzAxMjc4NS4xNjc1MTgzOTYy*_ga_9GWCXQJ62J*MTY3NTE4Mzk1OS4xLjAuMTY3NTE4Mzk1OS4wLjAuMA).. |
| Initial Assessment | Mufti Billal Omarjee |
| Reviewer | Dr Farrukh Habib |

## 48.1. Main Function of the Protocol and Token:

NEAR Protocol is a software that aims to incentivize a network of computers to operate a platform for developers to create and launch decentralized applications. NEAR Protocol is a Proof of Stake (PoS) blockchain that aims to compete with other platforms thanks to its sharding solution. Sharding should allow the blockchain to scale more efficiently, while enabling a greater amount of transactions per second and lower transaction fees.

NEAR Protocol uses a native token called NEAR, which allows users to pay fees for transactions, run applications and pay for storage.

Applications on NEAR must pay storage fees to the NEAR Protocol for any data that they store on the network and for performing computations. The network partially “burns” these tokens, or eliminates them from circulation, reducing the circulating supply of NEAR tokens in the process.

## 48.2. Shariah Description of the Protocol and Token:

NEAR platform is neutral as a platform and both halal and haram projects can be built on it. The token functions as a payment token on the platform and can be considered as means of payment, thus falling under the category of money from a shariah perspective.

## 48.3. Shariah Opinion of the Protocol and Token:

There were no issues found with using the platform and the token in a halal manner.

# 49. Name of the Protocol: Cardano (ADA)

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| --- | --- |
| Name of the Token: | Cardano (ADA) |
| CoinGecko Link: | https://www.coingecko.com/en/coins/cardano |
| CoinMarketCap Link: | https://coinmarketcap.com/currencies/cardano/ |
| Official Website: | https://cardano.org/ |
| Whitepaper Link: | https://docs.cardano.org/introduction/ |
| Initial Assessment | Mufti Billal Omarjee |
| Reviewer | Dr Farrukh Habib |

## 49.1. Main Function of the Protocol:

Cardano’s primary use case is to allow transactions in its native cryptocurrency, ADA, and to enable developers to build secure and scalable applications powered by it.

Developers can use the Cardano blockchain to run custom programming logic (smart contracts) and building programs (decentralized applications).

ADA is the native token of the Cardano blockchain and can be used to conduct peer-to-peer transfers across the globe. Cardano users need to buy ADA to facilitate transactions and participate in governance.

Ownership of the token determines who gets to be a slot leader and add new blocks, and who earns a share of fees paid for transactions in blocks.

ADA tokens are also used for voting on software policies, such as its inflation rate, giving participants an incentive to hold ADA and ensure its future value.

## 49.2. Description of the Protocol from Shariah Point of View:

Cardano is a generic platform that can be used to build DApps that are shariah and non shariah compliant. Its native token can be used in a shariah compliant way for things like transactions and voting.

## 49.3. Shariah Opinion of the Protocol:

If the platform and token is used in a shariah compliant manner then it will be halal.

# 50. Name of the Protocol: Solana (SOL)

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| --- | --- |
| Name of the Token: | Solana (SOL) |
| CoinGecko Link: | https://www.coingecko.com/en/coins/solana |
| CoinMarketCap Link: | https://coinmarketcap.com/currencies/solana/ |
| Official Website: | https://solana.com/ |
| Whitepaper Link: | https://solana.com/solana-whitepaper.pdf |
| Initial Assessment | Mufti Billal Omarjee |
| Reviewer | Dr Farrukh Habib |

## 50.1. Main Function of the Protocol:

Solana is a platform that seeks to provide a foundation for decentralized applications (dapps) in a way that prioritizes scalability. The Solana network offers many features common to other cryptocurrency networks such as smart contracting, transaction settlement, and token issuance. However, to distinguish itself from others, Solana hopes to offer better settlement speeds and a higher capacity for transactions.

SOL is Solana’s native cryptocurrency, which works as a utility token. Users need SOL to pay transaction fees when making transfers or interacting with smart contracts. The SOL token has two main use cases:

Paying for transaction fees incurred when using the network or smart contracts.

Staking tokens as part of the Proof of Stake consensus mechanism.

To secure its blockchain, Solana created a consensus mechanism called Tower BFT that incorporates what is commonly referred to as delegated proof-of-stake (DPoS). DPoS uses a voting and reputation system to secure the network, validate transactions and distribute newly minted SOL, meaning that anyone who owns SOL tokens (sometimes referred to as SOL coins) can help operate the network. Each SOL token can be locked, or “staked,” by participants (“nodes”) to both participate in governance and to increase the chances of being chosen to produce blocks.

Participants can also choose to delegate their SOL to other validators, allocating votes to them while earning a portion of the block rewards.

## 50.2. Description of the Protocol from Shariah Point of View:

The platform allows people to build dApps that can be used for shariah and non compliant manners. The token is a utility token that provides benefits to its holder in the form of governance, and it can also be used to reward stakers.

## 50.3. Shariah Opinion of the Protocol:

Although the platform and token can be used in a shariah compliant way. Staking might be questionable, if not haram, as it involves validating non shariah compliant transactions.