

**Q DAO:**

**Unique Platform to Generate  
Fiat-Pegged Stablecoins (USDQ, KRWQ)**

**[v 0.8]**

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## **Q DAO: Unique Platform to Generate Fiat-Pegged Stablecoins (USDQ, KRWQ)**

### The Q DAO Stablecoin Ecosystem

#### Overview of Q DAO Stablecoin Ecosystem

Cryptocurrencies offer a wide range of benefits for users around the world. However, high volatility in their prices prevents mass adoption. Users are not willing to trade in digital assets that might experience huge price changes in just a couple of minutes. Even the most popular coins, such as Bitcoin and Ethereum, aren't able to deliver stability with price movements for up 20% being a usual occurrence.

At the Q DAO Platform, users can generate various stablecoins, currently USDQ and KRWQ are available. USDQ uses Bitcoin as its collateral, i.e. in order to create USDQ users need to lock up their Bitcoins in a smart contract. The stablecoin's price is pegged to United States Dollar. Stablecoins are seen as an important enabler, paving the path toward mass adoption of DLT-powered digital currencies. In contrast to other stablecoins on the market, USDQ is fully decentralized with all of its components residing on top of the blockchain. The KRWQ (and other stablecoins, planned to be launched in the future) act in the similar way, but are pegged to their specific fiats (KRW for KRWQ). In order to simplify the description, we are referring below only to USDQ, but the reader should understand that the same always applies to all other stablecoins, such as currently available (KRWQ) and planned (CNYQ, JPYQ and others).

Any person can purchase and sell USDQ via exchanges, brokers or OTC deals. It's an ERC20 token and brings a convenient ease of transfer without any limitations of any kind. USDQ holders can earn additional profits, receiving the Savings Rate, accruing on their holdings.

Q DAO is a blockchain platform, integrated with Ethereum smart contracts. It provides a number of enablers for sustainability of the generated stablecoins, such as CDPs (collateralized debt positions), automated price adjustment processes with feedback mechanisms, as well as a system of incentives for external actors.

The stablecoins (USDQ, KRWQ and others) can be generated by any person who has Bitcoins at their disposal. Subsequently, these ERC-20 tokens can easily fulfill a wide range of functions, acting similar to other cryptocurrencies. Among the biggest use cases are cross-border value transfers, payments for goods and services to accepting businesses, as well as long-term savings. Additionally, the stablecoin generation system sets the foundation for a highly convenient and robust margin trading platform.

## Collateralized Debt Position Smart Contracts

Any person can use Collateral Assets in order to create USDQ at Q DAO Platform. They do this by interacting with a special smart contract, identified as "Collateralized Debt Position". The Q DAO Governance, made up by holders of the Q DAO governance token, is charged with making decisions on Collateral Assets, allowed for the use.

CDPs are simultaneously used to mint USDQ and accrue the debt. The user can withdraw the Collateral Assets at any time upon repayment of the USDQ amount, equal to the loan originally received. CDPs implement the "excessive collateralization" principle, assuring that the debt value never exceeds the value of the Collateral Assets. The technique enables CDPs to dampen a negative impact from sudden price movements for the Collateral Assets.



# Process for CDP Operations

## **Stage 1: CDP Creation**

The user registers at Q DAO Platform. The user needs to specify only the email, so that the ecosystem can furnish notifications on important events. In this way, we assure a high level of anonymity. The user receives the wallet and 3 private keys (private key to user's BTC wallet, private key to our network and private key to Ether network (with the last key provided optionally)), used to access various functions within the ecosystem.

## **Stage 2: CDP Activation**

The user transfers a required amount in BTC to their BTC wallet within the Q DAO Platform. Then, the user sets the desired parameters for the loan to be obtained.

## **Stage 3: USDQ Generation**

The ecosystem checks the availability of the required amount of the collateralized assets (for instance, Bitcoins, which the user has previously collateralized within the system). Upon a successful completion of the verification, the ecosystem mints the respective amount of USDQ and furnishes the same to the user's wallet. Now the user can utilize the received stablecoin as he wishes.

## **Stage 4: Equilibrating Collateral**

Subsequently, the user can adjust the collateral depending on the changes to the collateral price. Should the collateral's price go down, the user must add up the collateral or repay a portion of the USDQ-denominated loan. If the user fails to take any action, the ecosystem will perform the forced liquidation process. Should the collateral's price go up, the user can increase the USDQ-denominated loan amount, withdraw a portion of the collateral or avoid taking any action at all.

## **Stage 5: Withdrawal**

The user furnishes a request to the ecosystem for the funds withdrawal. The user should repay to the ecosystem the earlier received USDQ-denominated loan and the Stability Fee, which accrues throughout the loan term and payable in Q DAO token. The

user utilizes the private key in order to sign the transaction, enabling the user to get the collateral assets back to his wallet.

## Single-Collateral USDQ vs Multi-Collateral USDQ

Currently, the ecosystem allows to collateralize only one asset - Bitcoin. Subsequently, we plan to switch from Single-Collateral USDQ to Multi-Collateral USDQ, enabling users to leverage various Collateral Assets in order to generate the stablecoins.

# Price Stability Solutions

## Target Price

The Target Price for USDQ means the price, used to determine the value of the Collateral Assets, repayable to USDQ holders upon an Emergency Shutdown. USDQ features a soft peg to USD, meaning that a 1:1 peg is maintained most of time but some deviations might occur on occasion. The Target Price for 1 USDQ is 1 USD.



## Emergency Shutdown

Q DAO Platform is effectively protected against any large-scale attacks on its infrastructure with the Emergency Shutdown being the measure of last resort. Upon activation, the Platform terminates all of its operations and subsequently redeems USDQ holders and CDP operators for the net value of assets they have a claim for.

USDQ holders are entitled to receive the value in Collateral Assets, equal to the USD-denominated amount of USDQ units they held. During the Single-Collateral USDQ, the Emergency Oracles, elected by Q DAO holders community, manage the process for the Emergency Shutdown.

The list of emergencies includes prolonged periods with chaotic price movements, hacking attacks or security breaches. In addition, the Emergency Shutdown is to be implemented upon system-wide upgrades.

### ***Emergency Shutdown: Stage-by-Stage Sequence***

#### **Stage 1: Activation of Emergency Shutdown and Assets Withdrawal by CDP operators**

The Emergency Shutdown is triggered when Emergency Oracles or Q DAO voters identify any signs of a major attack on the ecosystem or when the upcoming upgrade requires its performance. Upon activation, all operations are stopped, enabling to prevent further disruptions and manipulation within the ecosystem. The Price Feed is halted at the then-effective price level which will be used to process users' claims. The CDP users can interact with the smart contract in order to immediately withdraw the net value for their Collateral Assets, held in CDPs.

#### **Stage 2: Completion of Pre-existing Auctions Following Emergency Shutdown**

The Q DAO Governance needs to determine the period of time, starting from the activation of an Emergency Shutdown, during which all previously commenced Collateral Auctions can be completed. The duration of this period is to be stipulated in such a manner, so that it insignificantly exceeds the duration of the longest Collateral Auction, which assures that no uncompleted auctions will remain upon the period's end.

#### **Stage 3: Processing of Claims from USDQ Holders for Remaining Collateral**

Upon completion of the auctions processing period, USDQ holders can interact directly with the Q DAO Platform and claim the value of their assets, determined as per the Target Price for USDQ, fixed upon activation of the Emergency Shutdown. For example, if USDQ Target Price is 1 USD, BTC/USD price is 10,000 USD and user's assets are 10,000 USDQ, as effective upon the Emergency Shutdown, the user is entitled to claim 1 BTC from the Platform. No time limits for furnishing the claims are instituted. Upon the

Multi-Collateral USDQ, user will have the right to furnish proportional claims for all Collateral Assets, included in the collateral portfolio.

### **Markets-Driven Price Stabilization Mechanism**

The CDP smart contract, operating at the Q DAO Platform, always assures the \$1 peg, i.e. 1 USDQ = 1 USD. At the same time, the prices for USDQ at secondary markets can deviate to upside or downside. The fact that the Platform offers USDQ at the \$1 price incentivizes market participants to engage in processes for price stabilization, deriving profits from their actions thanks to price deviations.

Thus, there can be two possible scenarios.

In the first scenario, USDQ trades higher at secondary markets. Market participants can purchase USDQ at the \$1 peg from the Platform and immediately sell at secondary markets, obtaining a profit. This results in the growing supply, which pushes the price down toward the \$1 peg.

In the second scenario, USDQ trades lower. Now, players can buy USDQ from secondary markets and sell to the smart contract on the platform, again obtaining a profit. Since they take out some of the supply from the market, the price is nudged up toward the \$1 benchmark.

Importantly, only those users who have collateralized their crypto assets at the Platform, can engage in such arbitrage activities. This acts as an additional booster for liquidity on the market.

In this way, the ecosystem leverages the basic economic forces in order to stabilize the prices for USDQ at secondary markets.

## Approaches to Risk Management at Q DAO Platform

The holders of Q DAO, the internal governance token, are entitled to take part in voting on actions for Risk Management:

### ***Creation of a new type of CDP***

The Platform enables to create either new types of collateral or new systems of Risk Parameters applicable to already existing collateral types.

### ***Adjustments to already deployed CDP types***

Introduction of adjustments to the Risk Parameters, applicable to either a single CDP or a number thereof.

### ***Adjustments to USDQ Savings Rate***

Adjusting the values for USDQ Savings Rate

### ***Selection of the set of Price Oracles***

The price discovery for Collateral Assets and USDQ is carried out based on the data, received from a decentralized network of oracles, each acting as an individual node. The Q DAO voting community is charged with decision-making as to the number of trusted nodes and owners thereof. The decentralization enables higher system resilience as up to half of the oracles can collude or malfunction without any negative impact seen.

## Risk Parameters

The Risk Parameters are used to determine the way, in which the Collateralized Debt Positions (CDPs) operate. For each CDP type, the Platform creates a unique set of Risk Parameters based on the risk profile, set out for the Collateral Asset, included within the CDP. Any adjustments to the Risk Parameters are made based on the decisions, delivered through the vote by Q DAO holders, where 1 Q DAO unit entitles the user to 1 vote.

The Platform enables the following Risk Parameters for CDPs:

### ***Debt Ceiling***

The Debt Ceiling determines the maximum allowed size of the debt, which can be originated by any individual type of CDP. Whenever the stipulated debt level has been exceeded for a specific CDP type, no further debt creation is possible until the previously generated CDP have been repaid and closed. The ecosystem leverages the Debt Ceilings in order to deliver a sufficiently high diversification for the existing collateral portfolio.

### ***Liquidation Ratio***

The Liquidation Ratio identifies a level, at which the ratio of the collateral stored and debt generated reaches a level where the risk for the CDP liquidation emerges. Should Q DAO voters community expect low volatility for the Collateral Asset, the Liquidation Ratio will also remain low. With higher expectations for volatility, the Liquidation Ration will increase.

### ***Stabilization Fee***

The Stabilization Fee is an annual interest rate, payable for each CDP. It is calculated based on the debt amount, generated through the CDP. Although the Stabilization Fee is identified in USDQ, it's allowed to make respective payments only in Q DAO. The amount of Q DAO payable is determined based on its market price, furnished through the Price Feed. After Q DAO tokens have been used to pay the Stabilization Fee, they are burned, i.e. they are permanently removed from circulation.

### ***Liquidation Penalty:***

The liquidation procedure is activated whenever the debt-to-collateral level breaches the maximum allowed level. In this case the collateral assets are used to purchase USDQ from the open market and burn a certain portion of USDQ, loaned by the smart contract, in order to reduce the debt-to-collateral ratio. The Liquidation Penalty, payable by the CDP holder, is used in order to mitigate any deficiencies in purchase/sell process.

### ***Auction Duration***

The period of time, during which the collateral auction is performed as starting from the time when the liquidation occurred.

### ***Step Size for Auctions***

The size of the step in auction bidding means the minimum increase in the new bid, as placed on top of the existing bid. This Risk Parameter sets out clear incentives for participants to make early bids within the process. At the same time, it prevents users from making insignificantly higher bids and thus clogging the ecosystem.

### **Q Box (Neural Networks Component)**

After the user has collateralized the crypto assets, he will receive the loan in USDQ and obtain the opportunity to install the Q Box app on his devices. The app connects a device to the self-trained neural network, capable of predicting price movements for crypto assets, learning from price charts, news bulletins and market buzz.

The quality of decisions, taken by the neural network, grows gradually, accounting for the scope of use. The speed of training depends on the amount of crypto assets, collateralized at the platform. A higher amount of crypto assets enables to obtain both higher speeds of training and higher growth in quality and frequency for predictions. In addition, the more devices the user installs the app on, the faster the training will be performed.

## What is Q BOX?



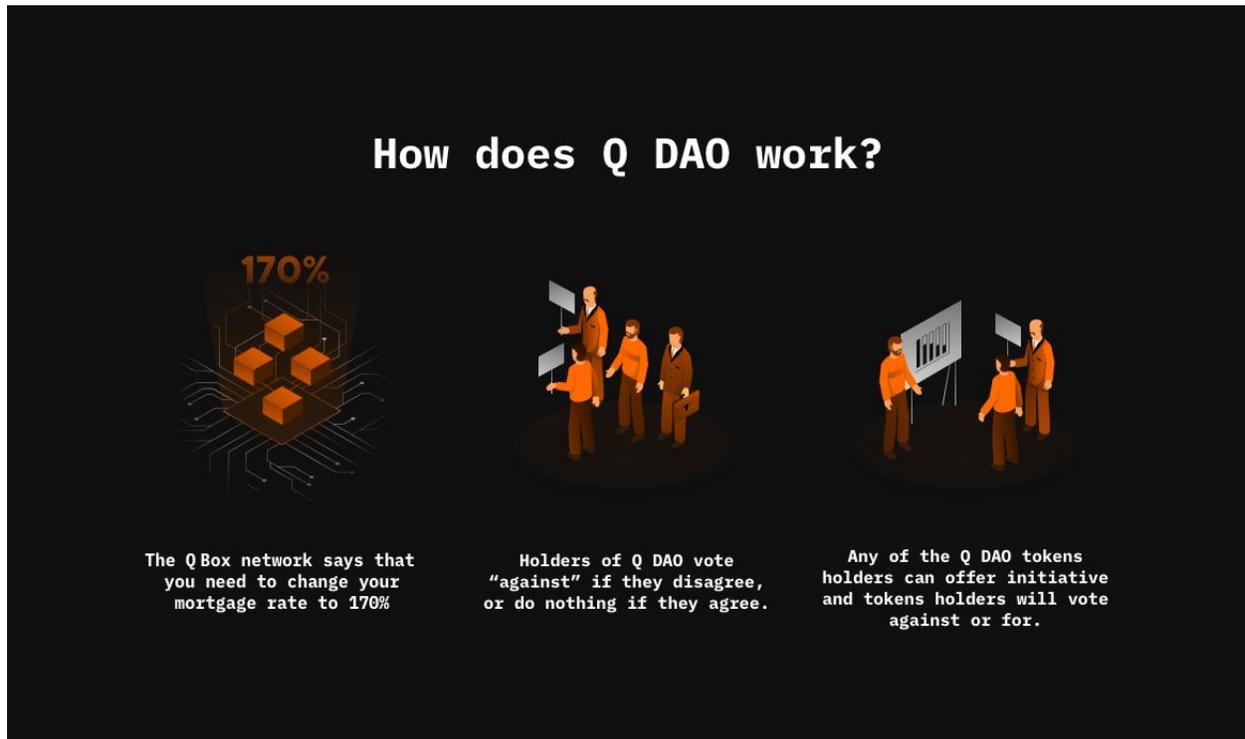
**Neural network on your laptop that predicts cryptocurrency behavior**

The second function of the neural network is mining the Q DAO, an internal governance token within the Platform. Q Box brings decentralization to the ecosystem, acting as a network of decentralized and fully independent predictors, forecasting prices for collateral assets and proposing potential changes to the collateralization ratios.

In order to avoid excessive mining, the ecosystem adjusts the complexity levels for Q DAO mining, so that the generated quantity does not exceed the quantity of tokens, burned through the processes to cast votes, repay collateral and liquidate CDPs.

## Q DAO Token Governance

Q DAO token is essential to governance mechanics, implemented within the Q DAO Platform.



Q DAO holders participate in the votes for an Active Proposal, submitted by Q Box (neural network component) or Q DAO holders. The Active Proposal is a smart contract that can access the ecosystem's parameters and make the changes, specified in the proposal.

A Proposal Contract can execute only once with it being subsequently destroyed after the use. Upon activation, it immediately implements the changes to internal variables within the Q DAO Platform.

The vote by the Q DAO holders community is held with regard to the Active Proposal. With regard to the proposals, brought forward by Q Boxes, the users who are inclined against the Active Proposal have to cast the "no" votes with their Q DAO tokens being burned upon the vote. 1 unit of the Q DAO token entitles a holder to 1 vote. A user who doesn't vote against the Active Proposal is deemed as voting in favor of the same. The

votes must be cast within 24 hours from the time when The Active Proposal was placed on the vote. Meanwhile, the Active Proposals, furnished by Q DAO holders, move through a conventional voting process with Q DAO holders voting for or against the proposals.

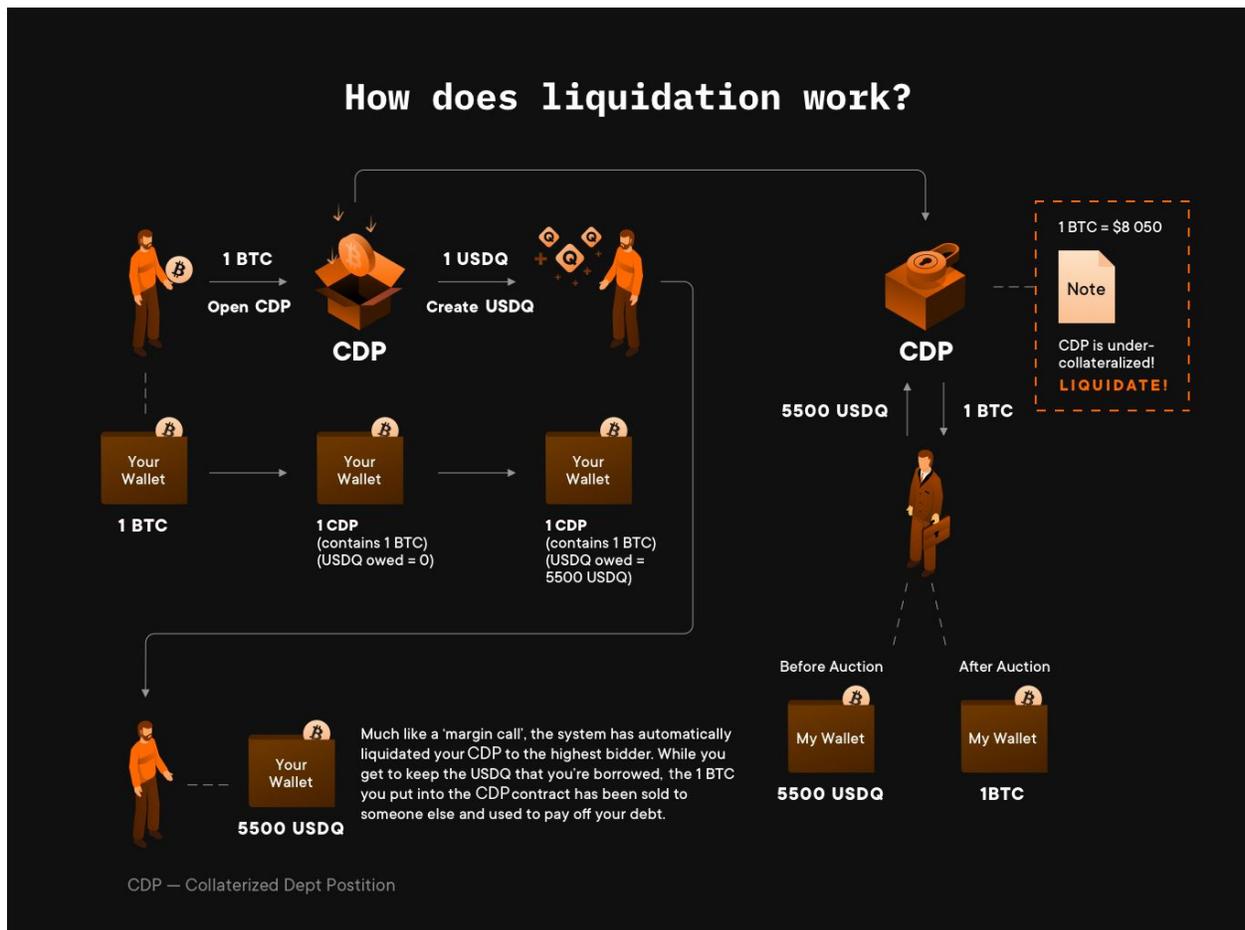


## Automatic Liquidation for High-Risk CDPs

The Q DAO Platform enables an automatic liquidation of CDPs, which serves to assure that there's always a sufficient amount of collateral to cover the outstanding debt (based on the Target Price). The point, at which a CDP should be liquidated, is determined automatically by the ecosystem through the comparison of the Liquidation Ratio and the present ratio of collateral to debt for an individual CDP.

The Liquidation Ratio is determined individually for each specific CDP type. It's managed by Q DAO Governance and derived based on the risk profile, applicable to particular Collateral Asset, used within the CDP type.

Whenever a specific CDP has reached the applicable Liquidation Ratio, the liquidation is triggered. The Collateral Assets are purchased by the Platform and then immediately sold off at the open market. During the Single-Collateral USDQ, the Liquidity Providing Contract is used as a temporary solution.



### ***Auctions for Debt and Collateral (To Be Implemented for Multi-Collateral USDQ)***

During the Multi-Collateral USDQ, the Q DAO Platform purchases the Collateral Assets, locked within the CDP, and subsequently sells them through the automated auction. Such an approach enables the ecosystem to liquidate CDPs even in the cases when there is no information available as to the market prices.

For the ecosystem to purchase the Collateral Assets, stored within the CDP, it first needs to obtain the sufficient amount of USDQ that will be subsequently used to cover the debt generated by the CDP. For this purpose, the Debt Auction is to be performed, during which the Q DAO tokens are sold to the bidders during the auction.

Simultaneously, the Collateral Auction is performed, during which the Collateral Assets are sold in order to obtain the proceeds which are also denominated in USDQ. These proceeds, equal to the CDP debt plus the Liquidation Penalty (another Risk Parameters stipulated through Q DAO vote), will be used to purchase the respective amount of Q DAO units and remove the same from supply.

In this way, Q DAO token dilution which occurs during the Debt Auction is being mitigated. Whenever the sufficient amount of USDQ and the Liquidation Penalty have been bid, the Collateral Auction automatically switches to the reverse auction mode. Now, the ecosystem will try to sell as little collateral as feasible, while the remaining collateral will be passed to the CDP user.

## External Actors

### ***Keepers***

Keepers are independent actors who make use of opportunities to profit and simultaneously contribute to effective operations of the platform. Keepers are usually automated systems. With regard to the Q DAO Platform, keepers engage in the Debt Auctions and Collateral Auctions, enabling a smooth process for the CDP liquidation.

In addition, keepers trade USDQ whenever it experiences short-term deviations from the Target Price. Whenever the current market price goes above the Target Price, keepers move to sell. And whenever the market price goes below, they buy. In this content, the Keepers expect profits to be realized when the coin returns to the Target Rate in the longer term.

### ***Price Oracles***

The Price Oracles include exchanges, information aggregation websites and potentially other sources, which are used to determine the prices for digital assets. Upon the ecosystem's launch, the team is to specify the defined list of trusted sources. The price will be calculated as the arithmetic mean of the values, publicized via the Price Oracles. Subsequently, the Q DAO holders community, as well as the neural networks, being a component of our community, will be able to amend this list of trusted sources.

## Sample Use Cases

The USDQ stablecoin generation ecosystem is open to use by any person, without any limitations or requirements for personal information or lengthy sign-up procedure.

### **Sample Use Case #1:**

Let's imagine that Alice wants to convert a highly volatile Bitcoin into a stablecoin. If she uses Q DAO Platform, she'll find it easy to collateralize her Bitcoin and get an amount in USDQ. Let's say that she collateralizes 100 USD in BTC. In this case, she'll receive around 66 USD in USDQ. USDQ is an ERC20 token, easy to use for any purposes. Whenever Alice decides to repay the loan and retrieve the collateral, she'll need to pay the Stability Fee (e.g. 1% per annum). Thus, whenever she repays 101 USDQ, the ecosystem will free up her collateral.

*Margin trading is made easy with CDPs.*

### **Sample Use Case #2:**

Bob sees a huge potential for BTC. He decides to margin trade. Bob collateralizes BTC worth 100 USD and receives USDQ worth 60 USD. Then he uses the received amount to purchase more BTC. Now, he owns 1,66x of Bitcoin. The collateral is safely stored within the smart contract and Bob can always retrieve it by repaying the loan amount and the Stability Fee.

*In order to protect against a negative impact due a flash crash in the Collateral Asset, the ecosystem uses the liquidations mechanism. The ecosystem automatically closes any CDPs which feature the risk levels deemed as excessively high. In this way, it is possible to assure that the outstanding supply of USDQ is always collateralized by the sufficient amount of the Collateral Assets.*

### **Sample Use Case #3:**

Let's imagine that Alice uses the CDP which features the collateral-to-debt ratio of 66%, the Liquidation Ratio of 30% and the Penalty Ratio of 5%. Now, let's imagine that BTC falls by 30% as compared versus the Target Price. This would result in the collateral-to-debt ratio going down from 66% to 26%. This value is below the 30%

Liquidation Ratio which means that the Liquidation will trigger and traders will start bidding through the Debt Auction.

At the same time, traders can start bidding in the Collateral Auction. As soon as the 105 USDQ bid on the BTC collateral has been placed, the reverse bid will kick in. Meanwhile, any excessive collateral will revert to the CDP owner.

## Total Addressable Market (TAM)

As the introductory section postulates, cryptocurrencies that feature price stability are an essential building block for the ecosystem of successful decentralized applications. Based on this assumption, the total addressable market for USDQ is, at least, equal to the scope of the overall blockchain industry. The non-exclusive list below enumerates some of the markets for Q DAO Platform where actors can win from price stability and decentralized margin trading capabilities it delivers:

### ***Financial services: decentralized leverage, derivative, hedging***

Traders win from using CDPs to generate fully decentralized leverage for margin trading. In addition, USDQ is a perfect collateral asset to decentralized derivatives (e.g. options, CDF and others).

### ***Value transfer for merchants, cross-border trade and remittance flows:***

USDQ empowers international trade by eliminating exposure foreign exchange risk (i.e. volatility in exchange rates between different currencies) and eliminating intermediaries who would have otherwise brought additional fees, processing times and bureaucracy.

### ***Transparency for accounting systems:***

USDQ will bring higher transparency to any organization willing to onboard (be it a non-profit, government agency or a business), growing efficiencies and reducing opportunities for corruption.

### ***Predictions and gambling:***

In predictions markets, users seek to eliminate any additional risk associated with excessive fluctuations in the currency they use to place a bet. Longer-term bets become even harder to control with expectations for enormous fluctuations in cryptocurrencies' prices, accounting for the early stages in their mass adoption. In comparison, USDQ brings high stability and completely eliminates any exposure to price fluctuation within short, medium and long term.

## How to buy USDQ?



Exchange

or



USDQ personal  
account

## Risk Mitigation

The Q DAO Platform might face a wide range of potential risks with regard to its development, launch and subsequent use. In this light, the Q DAO community should utilize all available tools and opportunities in order to mitigate these risks. The list below presents an overview for major risks and methods for their mitigation:

### ***Hacking attacks against smart contracts***

During the early stages of development, the biggest risk the ecosystem faces is a hacking attack by programmers who have identified an opportunity to use smart contracts in order to gain unauthorized access to the ecosystem and steal funds before the team manages to fix the bug. The worst realization of this risk will result in all decentralized cryptocurrencies, stored within the smart contracts at the Q DAO Platform, being stolen without any possibility to revert.

### **Mitigation approaches**

The Q DAO team has identified security and protection for smart contracts and ecosystem's architecture overall as the top priority from the start. All the code solutions

have successfully passed a thorough security audit, carried out by a major security auditor engaging some of the best talent in the blockchain development industry.

In addition to best practices and high-quality engineering, the formal verification is the most effective tool against hacking attacks. During this process, the authors create the mathematical specifications for intended behavior. Then, the mathematical proofs are obtained showing that the coding solutions cannot be used for any unintended behaviors.

The Q DAO code solutions have successfully passed the formal verification process. Within the short term, the completeness proof will be obtained, showing that no unintended behavior is possible to be carried out, exact for the exact behaviors, stipulated by the mathematical specifications.

### ***Collateral Assets Impacted by Black Swan Event***

The Black Swan event is another highly impactful risk which can realize with regard to collateral assets, used to generate USDQ. Such an event will have the biggest impact during the early stages of the USDQ Ecosystem roll-out when the Q DAO token is not established enough to sustain large-scale inflationary dilutions, or after the Ecosystem implements the multi-collateral mechanics.

### **Mitigation approaches**

During the first development stages, only BTC will be available as a Collateral Asset. In this way, we'll protect against the Black Swan events in other, younger, digital assets. At the same time, we'll use the debt ceiling, i.e. the limit for the total amount of the debt extended by the system. This will help us guard against the excessively high growth rates.

### ***Competitive offerings and ease-of-use/decentralization trade-off***

There's been a high concentration of investment and talent on the task for creating viable cryptocurrencies with stable prices. Since the Q DAO Ecosystem is based on the underlying "genuinely decentralized" technology, it's not possible to do away with arising complexities in the ecosystem's infrastructure. A resultant potential risk is that users will opt for simpler and better marketed systems, trading off on decentralization.

### **Mitigation approaches**

USDQ is easy to use and cryptocurrency industry stakeholders will have no problem with onboarding. The token will be made available across a wide network of outlets within the industry with sufficient liquidity in place. The ordinary users don't have to gain insights into the inner workings of the ecosystem and can start using USDQ in minutes.

Only large investment companies and Keepers will need to form an in-depth understanding as to the complexities and internal processes within the Q DAO Ecosystem. It's well understood that such players have at their disposal sufficient resources to assure successful onboarding, provided that they can access detailed documentation for the ecosystem. The Q DAO community will take active efforts in order to maintain such documents.

### ***Irrational market behavior, malfunctions in price feeds and other unforeseen events***

The ecosystem might be exposed to the negative impact from a wide range of unforeseen events (e.g. malfunctions in price feeds, prolonged irrational market behavior, problems with self-learning neural networks within Q Box system). Any of these events might have a destabilizing effect on USDQ, resulting in it being depegged from USD for a lengthy period of time. In the event when the community has lost confidence in the ecosystem, any further actions might not bring a tangible effect, i.e. even with high rate changes and Q DAO dilutions, USDQ will remain unpegged.

### **Mitigation approaches**

The Q DAO community will take active steps in order to introduce effective incentives for market actors to become Keepers and support the market's maturation. The Keepers will be instrumental in delivering higher market rationality and efficiency, while allowing a sustainable path for USDQ to grow its supply and avoid any unforeseen shock events. In addition, the neural networks will assure faster and more effective price discovery and predictions, bringing agility and expediency needed to persist in case of potential Black Swan price fluctuations.

### ***Disruptions in centralized governance during early development***

The Q DAO Foundation is the central governing body within the ecosystem and it will play a key role in the ecosystem's development during the first stages. The Foundation will be charged with, among others, managing inflows and expenditures, recruiting

development talent, establishing partnerships with other stakeholders and attracting institutional players. Should the Foundation fail in some regards, e.g. due to legal or management problems, the overall ecosystem will be at risk, in the absence of a clear and detailed backup plan.

### **Mitigation Approaches**

From the early stages, the ecosystem will enable the cooperation between the Q DAO Foundation and the Q DAO Community. The community brings together Q DAO holders who are independent of each other and the Foundation, but share the same goal of seeing their investments grow in value. The key developers were provided with significant shares of the total Q DAO distribution. Meanwhile, 51% of the tokens is distributed across the project's community in order to prevent the accumulation of voting power in the hands of the management and development team. Should the Q DAO Foundation fail in its activities for successful development, individual Q DAO holders will be incentivized to recruit and fund developers (or perform the development themselves). They will take active steps in order to prevent the collapse of the ecosystem and deterioration in their investment value.

## Bottom Line

USDQ delivers an effective solution for a stable value exchange method within the blockchain economy. Internal processes for USDQ generation, transfer and withdrawal, coupled with robust risk management solutions, invigorate the architecture to bring scalability, flexibility and sustainability. The development roadmap enables to focus on agile development in the short term with subsequent plans to deliver genuine decentralization. The ecosystem seeks to spur mass adoption, while always acting in a balanced and responsible manner.

# Glossary

## ***Collateralized Debt Position (CDP):***

A smart contract which is used to generate, maintain and retire USDQ. In order to activate the smart contract, a user needs to lock up a Collateral Asset and then generate USDQ. The smart contract mechanics assure that the collateral always exceeds the debt extended.

## ***Q Box:***

Q Box is a neural network. The users install Q Box app on their devices. Q Box predicts potential price movements for collateralizable crypto assets and changes collateralization rates accordingly. In addition, Q Box is used to mine Q DAO, the internal governance token. The neural network brings decentralization with all participating nodes being fully decentralized and independent.

## ***Stablecoin (USDQ/KRWQ)***

The cryptocurrency (ERC20 token) that features price stability against its peg. In USDQ, the peg is 1 USD. In KRWQ, it's 1 KRW. The stablecoins are generated at the Q DAO Platform through the collateralization of crypto assets (currently, only Bitcoin can be collateralized, but there are plans to collateralize other crypto assets in the future).

## ***Debt Auction:***

The procedure carried out to sell Q DAO for USDQ as a reverse auction. It is used to obtain the funds, required to cover the debt, emerging as a result of the CDP becoming undercollateralized.

## ***Collateral Auction:***

The procedure carried out to sell collateral from the CDP during the liquidation. The process includes 2 Stages: 1. coverage of any debt, owned to the Ecosystem by the CDP owner, 2. assurance that the excessive collateral is refunded to the CDP owner at the best possible price that can be found on the open market.

***Q DAO Foundation:***

The decentralized community which brings together blockchain developers and seeks to assure effective development, maintenance and scaling for the Q DAO Platform.

***Keepers:***

Independent actors who help maintain price stability and market rationality within the Q DAO Ecosystem. They trade USDQ, CDPs and Q DAO. They generate or retire USDQ via CDPs, and arbitrage on deviations between short-term and long-term price trends for the ecosystem's stablecoins.

***Q DAO (token):***

ERC20 token, used for internal governance via the voting process carried out by Q DAO holders and for system support via buy-outs of insolvent CDPs.

***Q DAO voters:***

Q DAO holders are entitled to participate in the votes on potential adjustments to Risk Parameters. In this way, they act to deliver democracy-driven management for agile and effective risk management at the Platform.

***Q DAO (ecosystem):***

The Decentralized Autonomous Organization, bringing together the Q DAO Platform seen as an architecture of technical components and Q DAO holders community.

***Oracles:***

The ecosystem will identify certain exchanges and statistics aggregation websites as Price Oracles, who will supply information about external events for the use within the ecosystem.

***Risk Parameters:***

The variables, used to track various risk characteristics of the CDP. They are used to determine the point, at which a specific CDP is viewed by the Q DAO Platform as excessively risky and thus should be liquidated.

***Sensitivity Parameter:***

The variable, used to determine the degree of aggressiveness, with which the USDQ Ecosystem automatically adjusts the Target Rate in response to current deviations of the USDQ short-term market price from its long-term peg to USD.

REVISED MARKS