RCASH WHITEPAPER

A Global One-stop Quantitative Cryptocurrency Trading Platform

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Summary

With the sharp rise in popularity of cryptocurrency markets in recent years, people's willingness to invest in this area has also become stronger. While the global circulation of cryptocurrency has attracted investors all over the world, at present individual investors can hardly profit from these markets.

In the 24/7 cryptocurrency trading market, a quantitative trading strategy is well suited to a market environment where the high number of individual investors, currencies, and exchanges causes lagging or even distorted price reporting. With exchange rate spreads between transaction pairs and currency values differing across hundreds of exchanges, the resulting arbitration gap leaves ordinary investors prone to market volatility. This unfortunate situation is made by the lacking availability of mature trading platforms that provide investors with quantitative trading instruments.

To address this gap in the market we are building the Rcash platform. Rcash is a one-stop quantitative trading platform serving the cryptocurrency market. Rcash provides tools and strategies that help investors easily execute quantitative transactions, reducing entry barriers to quantitative trading so that individual investors can realize solid returns.

Contents

Rapid growth in the cryptocurrency market

With the rapid development of blockchain technology, the cryptocurrency market represented by coins like Bitcoin, Litecoin, and Ethereum has ushered in a phase of aggressive development. Cryptocurrency trading volume already exceeds US $40,000,000,000 (about 280 Billion CNY) every day. In the four months between August and December of 2017 alone, the total value of the cryptocurrency market rose from 150 billion U.S. dollars to 700 billion U.S. dollars.

Considering the primary market, the number of active ICO projects has experienced rapid growth since the beginning of 2017, and a further 10,000 ICO projects are expected to launch in 2018. From the secondary market point of view as of January 24, 2018, CoinMarketCap reports show that over 1486 digital currencies have listed in Global Exchanges, a significant increase from the previous year.

The range of people involved in digital asset trading has long since moved on from the early crowd of crypto-geeks to encompass ordinary investors already further differentiated from professional investors and investment institutions likewise involved.

Faced with such a fiery market climate, in the fourth quarter of 2017, the Chicago Mercantile Exchange (CME) and the Chicago Board Options Exchange (CBOE) both launched bitcoin-based futures, confirming a place in traditional financial markets for Bitcoin and other digital currencies.

Investment trends in quantitative trading

Quantitative trading refers to the use of programs to execute trading orders and specific trading strategies. Compared with traditional fundamental analysis and technical analysis, quantitative investment depends mainly on data and models to identify investment targets and strategies. Differing from traditional investment methods, quantitative investment reduces the presence of subjective feelings when managing assets trading, while nevertheless using code to better present information for human judgement and enable smarter strategies when faced with the vast amount of information circulating in markets.

The investment strategies identified and executed through these programs will not tend to be disturbed by investor sentiment. The computer will instead use quantitative data analysis methods to quickly respond to changes and events in the market, avoiding negligence and biases arising from factors summarizable as human error.

The ability of the human mind to process such a vast amount of market information and make effective investment decisions is extremely limited. Unlike investment strategies relying on subjective judgement, quantitative investment offers the numerous advantages computer analysis to better enable investors to capture opportunities as they emerge.

The advantage of quantitative investment strategy is that it can clearly depict various investment concepts in different economic environments and different market environments. In the United States quantitative investment has already gone through more than thirty years of development history. According to Bloomberg data, as of November 4, 2008, the total assets managed by a total of 1184 quantitative funds reached 184.8 billion U.S. dollars with an average annual growth rate of 20%, compared with the 8% growth shown in the 18 billion U.S. dollars' worth of assets managed by 21 non-quantitative funds in 1988.

Ten years from now, a foreseeable 60% of the stock market orders will be issued by such programs. More than 80% of large U.S. funds and one-third of large Asian funds will have used quantitative investment strategies. Quantitative transactions are slowly but surely becoming the future of investment trends in the financial sector.

Huge Market Space for risk free arbitrage

Arbitrage is one kind of risk-free transaction in the cryptocurrency market. When the same transaction is traded in two or more markets, due to the difference between regions and other factors, there is a certain inherent price difference between the trading pairs. However, due to the market supply and demand, the market environment and trading rules will not be exactly the same, so there will be a price transmission delay or other distortion of the situation as a result. Therefore, the level of inherent spread will deviate. Intermarket arbitrage is also an opportunity to use the market imbalance to buy (or sell) a certain trade pair in a market and sell (or buy) the same trade pair in another market in order to earn a profit spread.

It is precisely in the digital money market that there are exchange rate differences between various types of digital currencies and different exchange rates between different exchanges. Whether the market is in a bull market or a bear state, as long as there are differences between different trading pairs and exchanges, investors have the opportunity to profit using quantitative trading strategies.

At this stage, the daily global cryptocurrency trading volume has already reached 40 billion US dollars. If the arbitrage funds market turnover were hypothetically 0.5% of the total margin, then use of arbitrage strategy at this point would alone yield 200 million US dollars a day. With full-year profits reaching 730 million US dollars, these are impressive margins.

Arbitrage in the cryptocurrency market presents a huge market in and of itself, because everyday investors have a strong impulse to trade. Individual investors rarely compare the current prices of multiple exchanges when making a deal, so there will not be great sensitivity to the spread between the various exchanges for each transaction. By calculating the different rates prevailing in different markets, the arbitrage platform mechanism can complete risk-free arbitrage investment behavior.

Investor predicaments

At this stage, the total number of people investing in cryptocurrency has reached tens of millions. Of them, most are casual individual investors, and most participants do not have a well founded trading strategy when investing in digital currencies. In the face of price fluctuations in the secondary market, they are often unable to determine when to buy and sell, leading to losses. Quantitative transactions in the digital money market, on the other hand, address only the concerns of investors and provide them with solid returns.

In real life, investors often find it hard to apply quantitative trading strategies to actual cryptocurrency investments due to various constraints. We can summarize the challenges ordinary investors and quantitative trading investors facing as follows:

Ordinary investors:

There are 1,486 cryptocurrency currencies that can be traded on the secondary market worldwide, with transactions numbering in the tens of thousands. At the same time, there are over 180 exchanges in the world, each matching transaction currencies differently by some measure from one another. For ordinary investors, it is difficult to simultaneously monitor the prices listed on various exchanges. Because of their limited ability to access information, data, and forecast models, this poses a significant obstacle to the effective use of quantitative trading strategies.

Quantitative investors:

For investors operating on the basis of some number of quantitative transactions, it is hard to easily implement such functions as building a quantitative trading model and completing a backtesting. Because of the different trading interfaces of the exchanges, it is very difficult for investors to develop a common interface at this stage based on their own capabilities to collect data from various platforms and subsequently complete strategic trading. It is difficult for investors to utilize existing resources to realize cross-market and cross-trade arbitrage.

The Rcash mission

Rcash is a global one-stop cryptocurrency trading platform. Rcash resolves the lacking access and infrastructure facing investors who could benefit from a quantitative trading strategy. The platform enables the use of conversion channels, currency trading, difference evaluation across transaction pairs, and quantitative trading strategy to help investors realize profits previously inaccessible in cryptocurrency trading.

Ordinary investors will be able to profit through the investment platform’s quantitative strategy fund. The platform provides a package of tools for quantitative investors to help them quantify transactions more quickly and easily. In exchange, investors will need to pay RCH tokens as service fees when using platform tools and interfaces.

Platform technology

On the platform, investors can enjoy the benefits of quantitative transactions through the cryptocurrency quantitative fund managed by the purchasing platform, as well as a set of quantitative trading tools and trading interfaces provided by the platform for investors to conduct strategic research, including data set models, trading model design, performance backtesting, simulation validation, tracking analysis, and automated Trading. Specific functions are as follows:

Intermarket arbitrage tools:

Using cross-market arbitrage tools developed for the platform, users can monetize spreads between multiple exchanges using the same or different trade instances and allow the system to trade orders based on strategic arbitrage.

Multi-Exchanges arbitrage tools:

Using platform tools, users can apply differential arbitrage strategies to different transactions on the same exchange platform.

Strategy backtesting tools:

According to user transaction records, the platform can provide a package of data to backtest indicators and more objectively reflect the detailed data in the user's portfolio. At the same time, tactical backtesting can generate multi-dimensional performance reports. The report dimensions include transaction data, trading cycles, strategy analysis, and transaction analysis, which enable investors to confirm the integrity of the report through more than 60 indicators spanning the four aspects.

Trend trading tools:

Through the use of analytical tools, users can set trends in their trading strategies. According to trend strategies, the system can place orders and generate different curve indicators such as long equity curve, short equity curve, equity curve, and losses for investors to analyze and put to use.

Transaction monitoring:

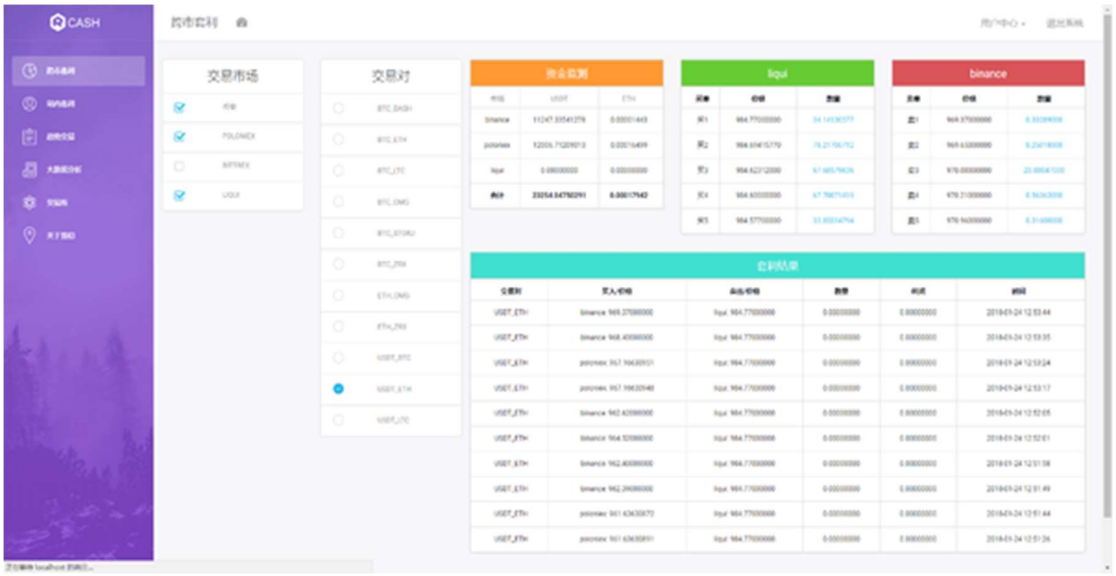
The Rcash system uses a self-developed common interface and real-time reporting on market data to provide users with real-time transaction reports and signal alerts, thus achieving transaction monitoring capabilities so investors do not miss a penny they could be earning.

Big data analysis:

As the number of platform users increases, Rcash will be able precipitate all aspects of the cumulative data and provide investors with richer data products. User-precipitated resources become part of the policy resource pool in the Rcash platform. Users can generate their own output, save it, upload different strategies, or share the resources that other users have generated.

At the same time, the platform integrates the underlying protocols of the world's top exchanges into Rcash's core code, and uses a series of custom standardized interfaces to support two-way direct and indirect spread conversion channels to create the most convenient and efficient cryptocurrency quantitative trading platform for investors.

Platform interface and partial code



Product prototype interface

Rcash cross-market arbitrage settlement interface

Rcash internal code

Platform profit model

Self-administered quantitative fund

Through its own funds, the platform invests in several mainstream currencies on the basis of quantitative transactions across major exchanges worldwide in order to obtain profits.

Fund management fee income

For its management of cryptocurrency quantitative funds the platform will collect management fees from investors according to investment income.

Tool service fees

When users take advantage of the investment tools and services offered on the platform Rcash will collect a service fee.

Token mechanism

Rcash will launch the Rcash (RCH) token as its own official currency, offering a total cap of 1 billion tokens and no further issuance after the initial offering. The RCH token is a decentralized blockchain digital asset based on Ethereum, an ERC-20 standard token hosted on the Ethereum blockchain.

Proportion	Amount	Distribution
40%	400,000,000	Founding team
40%	400,000,000	Tech development, market-level administration
15%	150,000,000	User purposes and community administration
5%	50,000,000	Consulting and cooperation funds

Token uses

In the process of using the Rcash platform, users will need to use RCH as a payment medium; Users can thus use cross-market arbitrage, intra-platform arbitrage, tactical backtesting, trend trading, transaction monitoring, big data analysis tools and other API interfaces enabling data trading.

Token value

Once the Rcash platform goes online, we will repurchase RCH at 20% of the quarterly net profit for each quarter. The repurchased RCH will be destroyed until a total of 500 million RCH has been destroyed.

Obtaining RCH

Community rewards:

Users who have made outstanding contributions to the platform, such as submitting better trading strategies, introducing highly qualified personnel, or otherwise promoting an active community atmosphere will receive RCH rewards through the community.

Purchase via exchange:

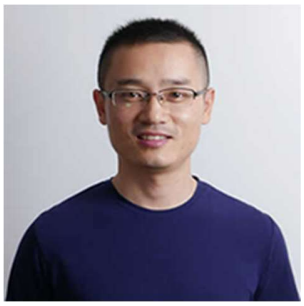
RCH will be available for purchase with Bitcoin and Ethereum after becoming available for transacting with.

Vesting plan

With the exception of some of the tokens held by the founding team, the remaining tokens have no lock-up period and can be traded immediately after RCH goes online.

Release period	Restriction limit
Initial release	25%
First year release	25%
Second year release	25%
Third year release	25%

Team, partners, and investors



Oamaru Gu (Gu Kaihua)

A graduate of Southeast University's Department of Computer Science, Oamaru Gu has been engaged in software project development for over 10 years, with previous posts at Jiangsu Investment, Jiangsu Jiaoke, and Southeast University. In 2013 he led the team in setting up a then Top Three cryptocurrency exchange—Bi Jijin, becoming China's first pioneer in cryptocurrency trading and cryptocurrency asset management. Between 2013 and 2014, the monetary fund housed over 50 digital currencies with a total trader volume of a hundred thousand users. The arbitrage systems developed by the organization have been in operation for nearly two years, and among these, the risk-free arbitrage strategy has not suffered any losses while hitting a record of 300% of previous risk-free arbitrage gains realized in two months.

Jim (Xu Jin)

Jim holds a double degree in Economics and Computer Science from Tsinghua University, an MS in Computer Science from the Hong Kong University of Science and Technology, and a Ph.D. in Finance from the University of Texas, along with over 10 years of automated trading experience on Wall Street, including with a New York hedge fund responsible for quantitative trading and high frequency trading. He has a very rich financial technology background, blockchain expertise, and a directorship with the New York Military Academy.

Jeason (Yi Zhangjun)

Holding a Master's degree from the University of Science and Technology of China in Software Engineering, Jeason has worked for Cisco and the Intel Asia Pacific R&D Center as a software development engineer. He has been working in the blockchain industry since 2015 and is very familiar with the development of bottom block technology and real smart contracts for the blockchain, having previously worked as a development engineer for the original chain and engaged in the development of a consensus module. He has participated in the preparation of the book *Blockchain Technology Development Guidelines*.

David King (Jin Dewei)

Jin Dewei has nearly 20 years of experience in fund management and is a former Dapeng Securities executive. He is the founder of the Changxin Monetary Fund, the first general manager of Hang Seng Juyuan, a partner of Ant Financial, a sponsor of Shumi Capital, and founder of the largest private integrated service provider "Every City Network" in China.

Wu Haishan

Dr. Wu graduated from the Fudan University School of Computer Science and has served as a postdoctoral fellow at Princeton University. After entering the BDL main Baidu space-time data research team he served as a former Baidu Institute big data laboratory scientist. He is

responsible for China's ghost city quantitative research project, featured by the MIT Review as one of 2015’s best studies.

Sheldon Lee

Dr. Lee is an expert specializing in academic research in numerical modeling and big data analytics. He has published dozens of international journal articles, writings and research reports. He has worked in the United States for hedge funds and investment banks, specializing in financial engineering theory, quantitative investment, high frequency trading, and artificial intelligence. He has been engaged in stocks, futures, options arbitrage and trading for a long time and has accumulated rich practical experience in these areas.

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The Ventureslab Blockchain Fund was founded by three partners in the Sinovation Ventures. In conjunction with OKEx, the world's largest digital asset exchange, and the global resources of legendary venture capitalist Tim Draper in Silicon Valley, it is dedicated to promoting technological innovation, serving the society, selecting high-quality projects, and dispelling the speculative bubble of ongoing ICO chaos.

Ms. Zhang Wei, the Managing Partner of the fund, has served as a top PE manager in Hong Kong and is responsible for all business in China. She has participated in and led several well-known projects in the consumer market and the Internet finance market. She has also worked with digital currencies since 2014 and has invested in more than 20 substantiated blockchain projects including EOS, IOTA, Extrade, and Arcblock.

Founder of the Ventureslab Mr. Mai Gang is honorary president of China Young Angel Investor Leader Association. In his more than 20 years of professional career, he has successfully created and invested hundreds of enterprises as angel investors, GP, and LP. In 2013, he and Xu Mingxing jointly invested to establish OKEx (formerly OKCoin), the world's largest digital asset exchange.

Tim Draper, Co-founder of Ventureslab, is a legendary Silicon Valley investor who founded the DFJ Derwent Foundation as the third-generation venture capitalist of the Draper family. He acquired nearly 32,000 Bitcoin on two occasions in 2014. Since then, he has been investing heavily in blockchain related projects. Boost VC, founded by his son Adam Draper, is a world-renowned blockchain projects incubator.

Roadmap

2017-Q2	Cross-market arbitrage dual-market Alpha version（Complete）
2017-Q4	Cross-market arbitrage multi-market Alpha version（Complete）
2018-Q1	Upgrade quantitative trading system model （Complete）
	Establish API standards and market access （70% complete）
	Multi-market arbitrage market Beta version
2018-Q2	Intra-platform arbitrage Beta version
	Trend trading (Customized strategy) Alpha version
2018-Q3	Trend trading (Including customized strategy) Beta version
	Other functions (Ex. deep multi-market trading, market forecasting)
2018-Q4	Multi-user multi-function Alpha version
2019-Q2	Multi-user multi-function Beta version
2019-Q3	Multi-user multi-function release version
2019-Q4~	Quantitative trading platform, mobile apps

Notes on risks

RCH tokens are a virtual point token issued by Rcash, and users can use these tokens in exchange for services on the Rcash platform. The Rcash team may add or adjust the services that Rcash tokens can redeem in accordance with business development needs.

This document provides planning instructions for the Rcash team for platform services and RCH Token functionality. The Rcash team may adjust the planning of actual business development based on industry developments, policies, and regulations.

The price of RCH tokens will be determined through market transactions. Users may profit from the RCH tokens when buying and holding RCH tokens, or may suffer losses as a result of falling prices. The RCH team makes no guarantees or assurances regarding the future price of RCH tokens.

Blockchain is an emerging field of investment, with high investment risk and expected returns. Users should fully assess the investment risk and make prudent investments within an acceptable range.