



ROXOM

BITCOIN DENOMINATED MARKETS

Intergalactic Finance

v1.0

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Abstract

We are travelling at the speed of light towards a new age.
An age denominated by a global internet currency that will define the
future of markets.

The internet markets.

In this universe, the world is defined by neutrality, and Bitcoin
provides that neutral settlement layer.

Humankind has now based its financial infrastructure on top of a
neutral layer that allows the existence of frictionless, universal
Internet markets.

In this paper, we present Roxom, a new Bitcoin-denominated market
that allows trading all sorts of securities, commodities, derivatives,
options, etc., in Bitcoin terms and with Bitcoin. At its inception, this
market will operate in a hybrid manner, combining centralized and
decentralized elements, and facilitating both on-chain and off-chain
money settlements. This approach will continue until the market
accumulates sufficient on-chain liquidity to transition into a fully
decentralized and on-chain version.

Our paper also introduces the pioneering concept of Roxom's Bitcoin
Native IPO, a first-of-its-kind event on the Bitcoin Stock Exchange
that disregards traditional stocks.

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1 Roxom & The Internet Era

1.1 The Internet Era & the Internet Markets

In this day and age, all the assets and forms of value that we know exist in the form of Internet Money. This means they are freely transferable, usable for payments, and exchangeable 24/7.

The base currency of humanity has been **Gold** for most of recorded history. First physical and now digital. In the internet/digital era, **Bitcoin is Internet/Digital Gold.**

What we used to know as stock markets, commodities markets, etc., now co-exist. In the Internet era, markets are Bitcoin-denominated, and what used to function as segregated markets is now a deeply interconnected system.

In these markets, companies issue BTC dividends; debt yields BTC interest, entities go public raising BTC, and fortunes are measured in BTC.

1.2 About Roxom

Roxom is the first, all-encompassing market in history. It grants access to trade a wide range of Global & Public Assets with Bitcoin, including the most important Stocks, Bonds, ETFs, Commodities, Minerals, and Derivatives worldwide.

For the first time, anyone can trade in a Bitcoin-denominated market. But our ambitions extend beyond that.

Over 14 years ago, pioneers like the founders of MPEX and GCBSE envisioned a future composed of Bitcoin Native Markets.

A future where anyone with a BTC wallet could trade any asset, take a company public, conduct debt offerings (bonds), create derivatives, and more, all to establish genuinely internet-native markets.

We are building on the foundation laid by these innovators, introducing several improvements to make sure that this time, we build markets made to last.

And although we're starting from a different angle to ensure that regulations do not hamper us, we are definitely headed in a similar direction. We're here to make history together.

1.3 About ROMMA

ROMMA (Roxom Options Market Making Algorithm) is our proprietary market-making algorithm that will provide liquidity and market-making to the Roxom Option Markets.

ROMMA will not have proprietary capital and, for such reason, will fund itself by issuing Bitcoin Denominated Bonds that shall yield Bitcoin interest. Raised capital from such bonds will be used as working capital and liquidity for the market-making operations.

Think of ROMMA as a self-sufficient, self-living bot that profits from market-making and gets funding from outside human investors. The Roxom team will be in charge of maintaining and improving ROMMA's operations.

With AI's advancement, ROMMA will eventually be a self-living or decentralized entity. Some AI Agent whose job is to be a market maker.

1.4 Legal and Regulatory Considerations

Compliance :

At the time of writing, and in contrast with the MPEX times, nation-states such as El Salvador have adopted Bitcoin as a Legal Tender.

Back in the MPEX times, they were considered outlaws. Fortunately, we can start an endeavour of such characteristics today with full regulatory support and coverage.

We are glad to say that leveraged on our experience of building crypto companies in Latin America, Roxom will be fully regulated under a friendly jurisdiction and compliant from day 0.

This ensures Roxom's sustainability and long-term success.

2 The roadmap

We've created an extensive roadmap that will allow us to fulfil our vision of global, permissionless and bitcoin-denominated public markets.

First of all, we would like to quote our friend Daniel Rabinovich, COO at Mercado Libre, the largest company in Latin America, who once said : "Start from the endstate"

What Dani refers to here is that it is crucial to define the end state of our

endeavour before starting. Based on this, we hereby present what the end state of our project is :

A Bitcoin-native, denominated and global Public Market. In this market, several things happen :

1. Participants can trade any asset (Equity, Bonds, ETFs, Commodities, Cryptocurrencies, FX, etc.) directly in Bitcoin or other (crypto)currencies.
2. There's a 24/7/365, the always-on market of Bitcoin-denominated Spot, Options, Perpetual, Derivatives, etc., trading against any pair (Equity, Bonds, ETFs, Commodities, Cryptocurrencies, FX, etc.).
3. Entities and/or market participants can conduct IPOs, Debt Offerings, etc., directly on Bitcoin and in Bitcoin terms (Bonds with BTC or other currency interest rates, IPOs raising Bitcoin, etc.)

2.1 Ignition - the Index

Initially, Roxom introduces a novel way of visualizing the world. We're reshaping financial perspectives and visualizing markets in terms of Bitcoin. For nearly a century, the worldview has been dollar-centric. However, given the accelerated inflation and a 15-year bear market in Bitcoin terms, it is time for a shift.

Drawing from Argentina's tumultuous economic history, where the nation has cycled through six national currencies in the last 55 years, we at Roxom understand the importance of financial stability. In Argentina, individuals who managed their finances in dollars generally fared exceptionally well, while those who relied on the official national currencies often suffered significant losses. As Argentinians, we aim to prevent global citizens from experiencing the same economic hardships we have faced.

Our first product is the Roxom Index, which will be released immediately at launch. The Roxom Index is an informative platform that shows the Bitcoin-denominated state of Global Public Markets instead of the traditional USD denomination.

The goal of the Roxom Index is for economists, analysts, institutions, and market participants to understand the current state of the global economy from a Bitcoin perspective instead of a USD perspective. The goal is to enlighten millions, if not billions, of citizens worldwide and show them the reality in which they live.

We are transitioning toward a Bitcoin-denominated global economy. From this perspective, we have been in a bear market for the past 15 years. During

this time, viewed in Bitcoin terms, markets worldwide have experienced a bloodbath.

2.2 Opening the Gates - a Public, Global Exchange

In the weeks following the launch of the Roxom Index, we will launch the Spot Exchange.

In the beginning, the exchange will contain the following spot assets :

Apple, Adobe, AT&T, Alphabet, Amazon, Bank of America, Berkshire Hathaway, CVS, Chevron, Citigroup, eBay, Meta, iShares Silver Trust ETF, GMC, Intel, IBM, iShares Treasury Bond 7-10 Year ETF, iShares Dow Jones, JPM, Microstrategy, Chase, MSFT, Morgan Stanley, Netflix, Nvidia, Oracle, Paypal Holdings, Pepsico, Pfizer, P&G, SDPR S&P500 ETF, Shopify, Starbucks, Tesla, BNY Mellon, Coca Cola, Goldman Sachs, Home Depot, Time Warner, United States Oil Fund, Virgin Galactic Holdings, Visa, Warner Bros, Wells Fargo, Western Union, iShares Gold Trust.

After the initial launch, Roxom will continuously list more assets according to the community's and shareholder's requests.

During this initial stage, only Bitcoin deposits & withdrawals will be eligible. Apart from the mentioned stocks, the BTC/USD¹ pair will be the only other possible trade. This is for customers who might want to revert to fiat-denominated currencies.

2.2.1 Investment Bank Opportunities

Our role as an exchange, a market and a broker is to ensure that our customers accumulate as much Bitcoin as possible through long or short trades.

The Roxom team will create indexes and information portals listing all Bitcoin-related stocks (such as Microstrategy, BitFarms, Marathon, BTC ETFs, etc.) to facilitate this. These portals will visualize the amount of BTC or Satoshis per share each company holds. We will also indicate if a stock trades at a premium or discount compared to BTC.

An example could be the following :² At the time of writing, Microstrategy holds 900k Satoshis per Share, but the stock is trading at 1.8M Satoshis. This suggests the share is trading at a 2x premium and provides an opportunity to potentially short Microstrategy in Bitcoin terms to accumulate more.

1. Can be fiat USD, USDC, USDT or other accepted stablecoins

2. This is not financial advise.

In cases like this, Roxom, besides facilitating the information, could also issue bonds to execute such trades, offering yields in Bitcoin to its investors.

Find an example with information at the time of writing below :

Company Analysis			
Company	Sats per Share (SPS)	Share Price (SATS)	Premium/Discount
Microstrategy	900,000	1,907,667	+111%
IBIT Bitcoin Trust	56,956	55,098	-0,0326%

2.2.2 Incorporating other currencies

As Roxom expands, it will include trading different assets, such as cryptocurrencies, which differ from BTC.

While Roxom will ultimately operate in BTC denominations, it will facilitate trading all assets with any currency.

Despite operating within the BTC economy, we believe in financial freedom and the ability for anyone to trade on their terms.

2.3 Bitcoin Denominated Options & Derivatives

Once the initial deployment phase concludes, we aim to push Roxom to the next level.

Creating options over traditional off-chain rails poses a substantial risk due to the denomination of stock exchanges worldwide in USD or other FIAT currencies. This makes it impossible for Roxom to execute off-chain derivative trades, as they are USD-denominated.

This can be seen when someone purchases a Call Option on TSLA/BTC. In this example, TSLA should gain value in BTC terms for the trade to be profitable.

However, a possible scenario where this occurs is when TSLA depreciates, and BTC depreciates even further in USD terms. In the context of Bitcoin, the trade would have been successful as Tesla's value increased in terms of BTC. However, if this scenario were enacted in real life as a long call position on TSLA (anticipating that TSLA would outpace BTC), we would have been liquidated and defaulted on the option.

To establish Bitcoin Denominated Derivatives Markets, we must develop synthetic markets that leverage on-chain (Bitcoin) liquidity rather than traditional off-chain (FIAT) liquidity.

At Roxom, we are big fans of what DYDX has done in the Options & Derivatives space, so we will probably work in the same or similar direction.

The liquidity for these synthetic option markets (think of Puts & Calls of AAPL, TSLA, MSFT, etc., but denominated in BTC) will be sourced from three different players :

1. Institutional market makers
2. Retail traders
3. ROMMA

The first two players will be able to provide liquidity and act as market makers in the Roxom derivatives markets, profiting from the spreads they secure.

On the other hand, Romma will provide market-making and options liquidity to the exchange, leveraging the liquidity from bond purchasers on the platform.

The profits from the market making across the exchange will be allocated for *i) paying premiums to bondholders, ii) issuing dividends to shareholders, and iii) covering operational expenses.*

2.4 Bitcoin Native Markets & Exchange

At this point, Roxom has introduced a new perspective of understanding money by enabling any entity or person to trade traditional assets/real-world assets using Bitcoin and by allowing trading options and derivatives for these asset pairs.

However, our vision at Roxom extends beyond this. We foresee companies, nation-states, and other entities listing their shares, debts, and other assets directly on the Internet and Bitcoin. We envision a future where global markets operate entirely online, on a neutral settlement layer, without any need for physical interaction.

This is the core idea behind The Bitcoin Native Exchange, the grand culmination of Roxom's efforts.

Our goal is to provide a fully decentralized, on-chain Global Exchange experience. This includes but is not limited to, Bitcoin Native IPOs, Debt Offerings, Decentralized Justice & Disputes, and more.

Companies can go public directly on Roxom by creating rosters about their offerings and publicly listing them by issuing shares on the platform.

Market participants can then participate in such listings and trade such assets around the clock.

Entities, including nation-states and companies, can also issue debt that can be traded on such markets. In addition, options and derivatives for these assets will be available.

With a Bitcoin wallet, anyone can publicly list their endeavours or invest in any initiative.

It's important to note that companies listed natively on Roxom must pay dividends in BTC. Similarly, all issued debt requires interest payments in BTC. Due to these factors, Roxom will primarily benefit companies that generate revenue in BTC.

Roxom will leverage solutions, such as RSK, Liquid network and Runes, to significantly enhance functionality and performance, enabling us to integrate smart contracts and other features with the security and robustness of the Bitcoin network.

3 Market Codes

Roxom Standard Identification Codes (RSIC)

To understand the Bitcoin Markets at Roxom uniformly, we need a clear and precise nomenclature for listing assets. Honouring the MPEX structure, we at this moment propose the following structure :

3.1 Cash Equivalents

All CX prefixed RSICs describe some cash equivalent. We don't intend to create a prefix for cash since currency-pegged stablecoins have already solved this issue.

3.2 Bonds

All B. prefixed RSICs refer to some bond. For an asset to qualify as a bond, it must have a fixed maturity date on which the principal is repaid. The instrument may or may not have a specified, fixed, floating or variable interest rate. The first available bonds will be the Roxom Bonds. An example :

- **B.ROM** - Roxom Liquidity Bond issued by Roxom to raise liquidity for the Options market.

3.3 Funds

All F. prefixed RSICs describe some sort of funds. Funds are purely financial vehicles with a periodically published NAV. Their owner buys typically and sells in a spread around the NAV. They may but do not normally pay dividends. An example :

- **F.RDIX** - Roxom Discount Index Fund, that invests in companies trading on a discount in BTC terms.

3.4 Options

All O. prefixed RSICs describe an option. The six to eight characters immediately after the dot describe the options' underlying and pricing unit. For instance O.BTCUSD are Bitcoin options struck in USD. O.USDEUR would be USD options struck in Euros. The six to eight characters are followed by a dot and either C for a Call option or P for a Put option. Following the C or P three digits describe the strike, floating with the double of the underlying exchange rate (thus if the underlying trades at 4.55 the three digit number will be regarded as if trailed by E-2, whereas if the underlying trades at 51 the three digit number will be regarded as if trailed by E+1. Finally after the three digits one letter will describe the option expiration by identifying a month, as follows : - T identifies the current month. - N identifies the next month. - Further letters may be allocated as the need for options further out arises.

3.5 Stocks

All S. prefixed RSICs describe a natively listed stock. This doesn't apply to Publicly Listed companies from the off-chain world, such as MSTR, AAPL, etc. An example :

- **S.ROX** - Roxom Shares, direct equity on Roxom.

3.6 Futures

All X. prefixed RSICs describe a future. An example :

- **X.MSTR** - Microstrategy Futures.

4 The Roxom IPO

We envision Roxom as a publicly listed, traded and owned endeavour. Similar to the NASDAQ, NYSE, LSE, etc., which are also publicly listed

companies owned by market participants. For this reason, the first fully digital Bitcoin IPO at the Roxom will be its own shares.

4.1 The offering

Roxom has 210,000,000 outstanding \$ROX Shares. An equivalent of 10 shares per BTC. For the time being, the shares have no voting rights. This is expected to evolve into a DAO model.

Investor Rights

- Shares have no nominal value
- Shares have no voting rights
- Owner(s) are not responsible for any net loss from Roxom's activity.
- Owner(s) are entitled to a fraction of the net profit of each month equal to the fraction of total stocks they hold.

Currently, the Roxom team owns the entirety of the 210,000,000 shares block. This ensures we can execute our long-term roadmap, managing the operations, regulatory relationships, etc., until we can slowly but steadily decentralize Roxom.

The initial offering of the Roxom will consist of 21,000,000 shares, equivalent to 10% of the total outstanding shares.

4.2 How it works

4.2.1 Prospectus

- **Total Outstanding Shares** : 210 million shares.
- **Shares Offered in IPO** : 21,000,000 million shares (10%).
- **Bid Price Range** : Roxom shall not provide any price recommendation. The market shall price it via an auction.
- **Auction Window** : From xyz of 2024 to zyx 2024.

4.2.2 Bid Submission

Sealed Bids - Investors submit their bids confidentially, specifying :

- **Number of Shares Desired** : How many shares they wish to purchase.
- **Bid Price per Share** : The price in Bitcoin they are willing to pay per share.

Bitcoin Escrow : Bidders must accompany their bids with a Bitcoin deposit equal to their bid's total value, which won't be eligible for withdrawals until the entire bid process has finished.

4.2.3 Auction Closing and Bid Review

Closing the Bidding : After the deadline, we shall not receive more bids.

Ordering of Bids : Roxom will arrange all bids from highest to lowest based on the bid price. This is essential for determining the clearing price.

4.2.4 Determining the Clearing Price

Clearing Price Calculation : We shall identify the lowest bid price within the highest price segment that covers the sale of all 21 million shares. This price becomes the clearing price, ensuring all winning bidders pay the same price.

4.2.5 Allocation of Shares

Pro Rata Allocation : If bids at the clearing price exceed the available shares, we shall allocate shares on a pro-rata basis to these bidders.

Full Allocation to Lower Bids : Bidders below the clearing price receive no shares, and their Bitcoin deposits are promptly refunded.

4.2.6 Distribution and Refunds

Share Distribution : We distribute the shares to the successful bidders' wallets as specified in their bid submissions.

Refund Excess Bitcoin : We return any surplus Bitcoin from bids above the clearing price or from bidders who did not receive all the shares they bid for.

4.2.7 Auction Process

A Transparent Process :

- **Registration :** Each participant registers their interest by registering on the auction platform. They receive a unique auction ID in return.
- **Bid Submission :**
Within the Auction portal, participants enter their bid amount for the number of shares they want to purchase.

They can choose to pay for their bid using either : The balance already available in their Roxom account, or by sending Bitcoin to a unique address provided by the platform for this specific auction. Each bid is linked to a unique bidder ID assigned by Roxom, enhancing privacy and security.

- **Bid Recording and Commitment** : After submitting the bid and completing the payment, the platform automatically generates a hash of the bid details, including the bidder ID and bid amount. This hash serves as a bid commitment.
The bid details are recorded on Bitcoin using an OP_RETURN transaction. This ensures the bid is transparently logged while maintaining confidentiality through encryption.
- **Clearing and Allocation** : The auctioneer processes all verified bids to determine the clearing price, allocates shares accordingly, and returns excess funds to bidders or transfers Bitcoins according to the auction's outcome.
- **Verification** : After bids are revealed and processed, the auctioneer publishes all verified bids, the decryption method and the results, allowing anyone to verify the correctness of the auction outcome using the published blocks OP_RETURN field.

4.2.8 Secondary Market Opening

Trading on Roxom : After publishing the auction results, trading of the shares on Roxom's platform will begin to allow further price discovery and liquidity.

4.2.9 Example : Scenario Setup

- **Total Shares Offered** : 21 million shares.
- **Bidding Window** : Investors have submitted bids within the specified window.
- **Example Bids Received** : For simplicity, let's consider a sample of bids received by Roxom :

Bid Process		
Bidder	Bid Price (BTC per Share)	Shares Requested
Alice	0.0035	5 million
Bob	0.0032	10 million
Charles	0.0030	8 million
Diego	0.0028	3 million
Wen	0.0025	4 million
Fox	0.0022	2 million

1. Arrange Bids by Price

Sort the bids from the highest price per share to the lowest :

1. Alice : 0.0035 BTC for 5 million shares
2. Bob : 0.0032 BTC for 10 million shares
3. Charles : 0.0030 BTC for 8 million shares
4. Diego : 0.0028 BTC for 3 million shares
5. Wen : 0.0025 BTC for 4 million shares
6. Fox : 0.0022 BTC for 2 million shares

2. Accumulate Bids to Cover Offered Shares

Sum the shares from the highest bids downward until reaching or exceeding the total shares offered (21 million) :

- **Alice's bid** : 5 million shares
- **Bob's bid** : 10 million shares (cumulative 15 million)
- **Charles's bid** : 8 million shares (cumulative 23 million)

At this point, the cumulative bid covers the 21 million shares Roxom is offering. The bid from Charles is the lowest, and it still allows the total number of bids to cover all offered shares.

3. Determining the Clearing Price

The clearing price is the lowest bid that allows for the sale of all offered shares. In this scenario, that is Charles's bid of 0.0030 BTC per share.

4. Share Allocation

- Alice receives 5 million shares at 0.0030 BTC.
- Bob receives 10 million shares at 0.0030 BTC.
- Charles receives the remaining 6 million shares at 0.0030 BTC, even though they bid for 8 million shares.

5. Refunds

Charles had bid for 2 million more shares than they received ; they will get a refund for the excess BTC they deposited for the extra 2 million shares at 0.0030 BTC each.

6. Aftermath

In this example :

- The clearing price is set at 0.0030 BTC per share.
- All successful bidders pay the same price per share.
- Bids lower than the clearing price (from Diego, Wen, and Fox) do not receive any shares, and their full Bitcoin deposits are refunded.

4.3 Investor Rights to Earnings

Investors are entitled to Roxom’s monthly net profits, defined by their equity. Dividends will be paid on a monthly basis to all shareholders.

4.3.1 Dividend Calculation Example

Let’s assume the following for a given month :

- **Roxom’s Net Profit** : 500 BTC
- **Total Outstanding Shares** : 210,000,000 shares
- **Shares Available Publicly** : 21,000,000 shares
- **Public Share Fraction** : 10% of total shares

Step-by-Step Dividend Distribution :

1. Monthly Dividends Per Share :

The net profit attributable to each share is calculated by dividing the total net profit by the total number of outstanding shares.

$$\text{Dividend per Share} = \frac{\text{Net Profit}}{\text{Total Outstanding Shares}}$$

For our example :

$$\text{Dividend per Share} = \frac{500 \text{ BTC}}{210,000,000 \text{ shares}} = 0.000002381 \text{ BTC}$$

2. Total Dividend for Public Shares : We multiply the dividend per share by the number of publicly available shares to find the total dividend distributed to public shareholders.

Total Dividend for Public Share = Dividend per Share \times Public Shares

For our example :

Total Dividend for Public Share = $0.000002381BTC \times 21,000,000 \approx 50$ BTC

Example Scenario for a Shareholder :

Suppose an investor owns 210,000 shares (which is 1% of the public shares or 0.1% of the total shares).

3. Dividend for the Investor : We multiply the investor's shares by the dividend per share.

Dividend for Investor = Dividend per Share \times Investor Shares

For our example :

Dividend for Investor = $0.000002381BTC \times 210,000 = 0.5BTC$

Key Points to Note :

- **No Voting Rights :** Since the shares have no voting rights, shareholders do not influence company decisions but are entitled to profits.
- **No Liability for Losses :** Shareholders are not responsible for any net losses incurred by Roxom.
- **Profit Distribution :** Profits are distributed monthly, offering a regular income stream based on the company's performance.

Each shareholder receives a portion of the net profits proportional to their shareholding, fostering an incentive to invest in the company while Roxom maintains control over its strategic direction.

5 Roxom Bonds

5.1 Overview

ROMMA will not hold any proprietary capital to operate the options markets for the foreseeable future.

The market operations will be entirely supported by Roxom's proprietary market-making and pricing algorithms - ROMMA. In routine operations, ROMMA borrows the requisite capital to cover all assumed risks adequately.

This entails securing an amount of BTC equivalent to the aggregate of all open CALLs and USD corresponding to the total of all PUTS multiplied by their respective strike prices.

Total Required Capital =

(Outstanding Calls \times Strike Price) + (Outstanding Puts \times Strike Price)

Consequently, Roxom ensures its capability to fulfil BTC obligations irrespective of the market price fluctuations, extending to both hypothetical extremes of zero and infinity.

All market participants are entitled to finance Roxom's algorithms in exchange for a fixed premium on the capital lent.

Considering the potential for high profitability, as demonstrated by historical precedents like MPEX, the initial premium rates for financing Roxom's algorithms are projected to range from 0

Submitting bids includes specifying the quantity of bitcoin to be deposited and the anticipated premium rate.

5.2 Roxom Bond Offering

At the culmination of each month, the Roxom Algorithm will organise the list of capital deposits in ascending order by the premium rates and delineate the threshold where the month's capital requirements are met.

All participants above this threshold will receive the premium rate of the last accepted offer, akin to the method employed in treasury bond sales. To elucidate this mechanism, consider the following example :

Bid Process		
Bidder	Allocated BTC	Desired Premium
Alice	10 BTC	1.2%
Bob	100 BTC	1.5%
Wen	50 BTC	1.65%
Diego	500 BTC	1.9%

5.2.1 An Illustrative Example

Suppose in a particular month, the total capital requirement is 115.217 BTC, the allocation would be as follows :

- A, with 10 BTC at 1.65%,
- B, with 100 BTC at 1.65%, and
- C, with 5.217 BTC at 1.65%.

If, in another month, the financing need is 577.571 BTC, the allocation would include :

- A, with 10 BTC at 1.9%,
- B, with 100 BTC at 1.9%,
- C, with 50 BTC at 1.9%, and
- D, with 417.571 BTC at 1.9%.

It should be noted that since liquidity is initially limited, the Roxom Algorithm's ability to engage in market-making is confined to the extent of capital available.

Although financiers do not partake in the profits generated by Roxom, only in their premiums, their investment is not devoid of risk as their capital is proportionately utilised to cover any shortfalls.

5.2.2 A Hypothetical Adverse Scenario

Consider a given month when the net results were a deficit of -5,775710 BTC. This loss would be distributed and divided by the total capital (577.571 BTC), resulting in a loss of 1% (equivalent to 1 Bitcoin cent per bitcoin). Consequently, the adjusted capital holdings for each financier in the subsequent month would be :

- Alice holds 9.900000 BTC, seeking a 1.2% premium,
- Bob holds 99.000000 BTC, seeking a 1.5% premium,
- Wen holds 49.500000 BTC, seeking a 1.65% premium,
- Diego holds 495.000000 BTC, seeking a 1.9% premium.

Thus, each financier lost a small amount of BTC : A 0.1 BTC, B 1 BTC, etc. Conversely, in months where Roxom realises a profit, financiers would

receive their stipulated premiums without any deduction from the principal.

It is imperative to clarify that only capital contributions calculated for whole months will be eligible for participation in financing. Therefore, deposits made after the commencement of a month will be deferred to the subsequent month for financing consideration. Investors retain the right to withdraw their investments, which will be processed at the end of each month after any necessary adjustments for losses, if applicable.

5.2.3 Bond Details

Bond Types :

- Performance-Linked Bonds : Includes a variable component based on the exchange's financial performance.

Performance Bonus :

- Up to an additional 0.5% bonus, calculated quarterly based on key performance indicators such as trading volume and profitability.

Capital Buffer :

- A portion of the proceeds will be allocated to a risk mitigation pool to protect bondholders against potential losses.

5.2.4 Auction/Offering Process

Auction Type :

- Sealed-bid auction to determine the premium rates and allocate bonds based on competitive bidding.

Process :

- Investors submit bids indicating the amount of BTC they are willing to invest and the premium rate they accept.
- Bids are sorted from the lowest to the highest premium rates.
- Bonds are allocated starting with the lowest bids until the total amount needed for the month's expenses is reached.

Subscription Details :

- Bids must be submitted via our dedicated platform during the specified subscription window.
- Each bid must include the desired premium rate and the amount of BTC to be invested.

5.2.5 Risk Management and Capital Protection

Risk Mitigation Pool :

- Funded by a small fraction of the trading fees, this pool serves to cover unexpected shortfalls and financial discrepancies, ensuring the protection of the principal invested by bondholders.

Automated Management via Smart Contracts :

- All bond transactions, including issuance, premium payments, and redemptions, are managed via smart contracts on a Layer 2 solution such as RSK or Liquid Network.
- Transparency and immutability of records are guaranteed.

5.2.6 Secondary Market and Liquidity

Secondary Market :

- Roxom will facilitate a secondary market on its platform, allowing bondholders to sell their bonds before maturity.
- Market-making strategies will be implemented to ensure liquidity and fair pricing.

5.2.7 Recap

Roxom’s bond offering is designed to provide a stable funding mechanism for its operational needs while offering a robust investment opportunity for those in the cryptocurrency community.

Roxom fosters a mutually beneficial relationship with its investors by aligning bondholder returns with the exchange’s performance.

5.2.8 An Example

Initial Auction and Bond Issuance

- Roxom issues monthly bonds, with the proceeds specifically earmarked for providing liquidity in the options trading market.

Bond Offering and Auction for Market Making

- Let’s go over the scenario :
 - **Total Monthly Liquidity Requirement :**
Estimated at 2,000 BTC to adequately market make and cover positions in the options market.
 - Premium rates are determined through the auction, reflective of market demand and the perceived risk of the month.

Auction Mechanism :

- Investors submit sealed bids indicating the BTC amount they wish to invest and the premium rate they are willing to accept.
- Bonds are ordered ascendingly by the premium. A line is drawn under (or through) the offer, which fills the capital needs of the respective month. All the people above the line will receive the last accepted premium.

Example Auction and Outcome

- Monthly Auction :
- Date : August 1, 2024
- Bids Received :
 - Investor Bob : 800 BTC at 1.2%.
 - Investor Diego : 1,200 BTC at 1.4%.
 - Investor Claude : 500 BTC at 1.6%.
 - Investor Wen : 700 BTC at 1.1%.

Auction Sorting and Allocation :

- Bids are sorted by premium rate from lowest to highest.
- We draw a line through the offer, filling the respective month's capital needs. All the people above the line will receive the last accepted premium (a system much like the one used for treasury bonds sales). To understand better, here is an example :
 - Investor Wen : 700 BTC at 1.4% (accepted fully)
 - Investor Bob : 800 BTC at 1.4% (accepted fully)
 - Investor Diego : 1,200 BTC at 1.4% (500 BTC accepted, 700 BTC excess)

Funds Raised : Total of 2,000 BTC, directly used for market making activities.

Use of Funds for Market Making

- Liquidity Provision :
 - The entire 2,000 BTC raised from the bond auction is used to provide liquidity in the options market. This involves :
 - Setting bid and ask prices to ensure a stable and liquid market.
 - Covering positions and managing the spread effectively to reduce slippage and improve trading conditions.

Monthly Premium Payments :

- Premium payments are calculated and distributed from the profits generated by market-making activities.
- Calculations :

- Investor Wen receives 700×0.014 BTC.
- Investor Bob receives 800×0.014 BTC.
- Investor Diego receives 500×0.014 BTC.

Transparency and Monitoring

- Record Keeping :
 - Voluntary Blockchain Recording :
 - While Roxom isn't fully decentralized, key financial transactions and records, particularly those related to bonds and market-making activities, will be recorded on a blockchain ledger.
 - Data Publication :
 - Roxom will periodically publish comprehensive logs of all bond transactions and market-making activities. These logs are not only stored on Roxom but are also recorded on a blockchain. Ensuring all stakeholders have full access to our operations and can independently verify their integrity.
 - These logs will be readily accessible to users and stakeholders, enhancing transparency and allowing for independent verification of Roxom's operational integrity.

Renewal and Adjustment

- The bond issuance process is repeated monthly, with adjustments based on the current needs of the market and the financial health of Roxom.
- Regular reports are provided to investors detailing the performance of the market-making operations and the returns generated from these activities.

This example is intended to demonstrate the direct connection between funds raised through bonds and their utilization to enhance the liquidity and functionality of the options market on Roxom. This strategy supports the exchange's operational needs and contributes significantly to the market's efficiency and appeal to traders.

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