DEXGOOD WHITEPAPER

1. Executive Summary

The inception of Bitcoin, marked by the embedded message in its genesis block—"The Times 03/Jan/2009 Chancellor on the brink of a second bailout for banks"—captured the essence of its creation. This message highlighted a fundamental flaw in the traditional financial system, serving as a catalyst for the revolutionary concept of a decentralized digital currency. Unlike fiat currencies, which rely on government trust without tangible backing, Bitcoin introduced a system where trust is built on the strength of its algorithm and its user base.

Our decentralized exchange, DEXGOOD, embodies the spirit of Bitcoin's mission. We do not aim to dismantle the existing financial system but to collaborate in its enhancement. The recent scandals in cryptocurrency exchanges, where the misuse of client funds has led to catastrophic failures, underscore the need for a return to core principles such as transparency and security. DEXGOOD is designed to address these critical issues in the digital asset landscape, including "proof of reserve," front-running attacks, and the need for greater transparency.

At the heart of our exchange is a commitment to the foundational principles of trade that have governed human civilization for millennia. Trade, at its core, is about making agreements and exchanging assets directly. In DEXGOOD, every user acts as the custodian of their assets, ensuring complete control and security.

As countries worldwide explore blockchain-based systems to enhance their financial infrastructures, DEXGOOD sees an opportunity for global collaboration. Together, we can not only improve the financial system but also transform it, making it more secure, transparent, and trustworthy.

2. Introduction

Decentralized exchanges (DEXs) have quickly become a cornerstone of the digital asset ecosystem, offering a trading experience that is secure, transparent, and free from censorship. Unlike traditional exchanges, which rely on centralized control, DEXs operate on blockchain networks, utilizing smart contracts to facilitate peer-to-peer (P2P) trades. This decentralized approach empowers users to trade directly with one another, eliminating the need for intermediaries and reducing the risk associated with centralized entities.

Among the most popular DEX models today is the Automated Market Maker (AMM). AMMs have revolutionized trading by providing continuous liquidity and decentralized price discovery. However, despite their innovations, AMMs are not without flaws. Issues such as

impermanent loss and front-running expose traders to significant risks, underscoring the need for further innovation in this space.

Enter DEXGOOD—a next-generation decentralized exchange designed to address and overcome these challenges. This white paper provides an in-depth exploration of DEXGOOD's innovative features and how they improve upon existing AMM-based platforms. We will delve into the current landscape of both decentralized and centralized exchanges, identifying the key challenges traders face today. Through this analysis, we will demonstrate how DEXGOOD is poised to redefine the exchange market by enhancing security, transparency, and user experience.

Finally, DEXGOOD is introduced as a pioneering platform that not only addresses the shortcomings of its predecessors but also sets new standards for the future of digital asset trading. With its unique features and robust architecture, DEXGOOD has the potential to transform how users interact with digital assets, making decentralized exchanges a mainstream option for traders worldwide.

3. Challenge and Solution

3.1. Challenge

This section addresses the challenges present in both centralized exchanges (CEX) and Automated Market Maker (AMM) model-based decentralized exchanges (DEX). It also proposes enhancements to overcome these issues.

3.1.1. CEX Challenge

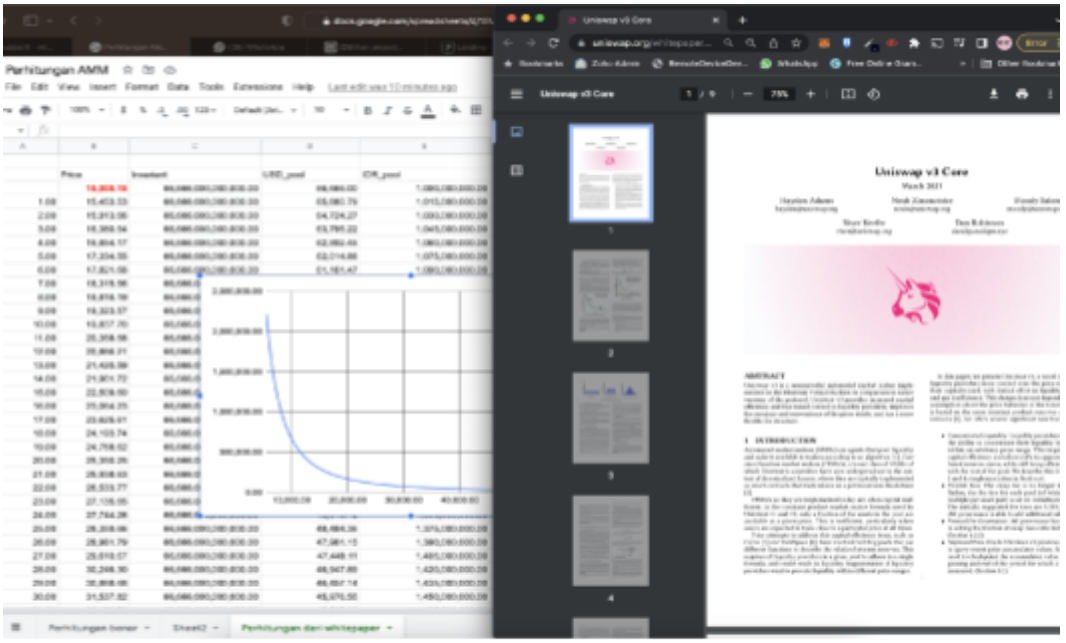
Centralized exchanges (CEX) present several significant drawbacks, primarily due to their control over users' funds. Users must place trust in the CEX to manage and safeguard their assets appropriately. Unfortunately, this trust is often misplaced, as some exchanges engage in risky investments that can jeopardize their solvency. Numerous CEX bankruptcies have occurred due to such practices, leading to substantial losses for users.

Additionally, CEXs have the authority to freeze funds based on reasons that may not always be transparent or justified. This control is akin to the power banks hold over their clients' accounts, undermining the principles of decentralization. Moreover, CEXs can facilitate leverage trading without holding the actual assets, as they can easily manipulate and modify their databases without user knowledge.

3.1.2. Exponential Price on AMM

The AMM exchange model is based on a pricing mechanism known as the constant product formula, or the “x*y=k” formula. This formula calculates asset prices based on total supply and liquidity. However, a significant issue arises when asset prices increase; the liquidity required to maintain these prices also rises exponentially. This concentration of liquidity among a few large holders makes the asset susceptible to manipulation and attacks.

To understand the exponential price, we provide the following illustration;



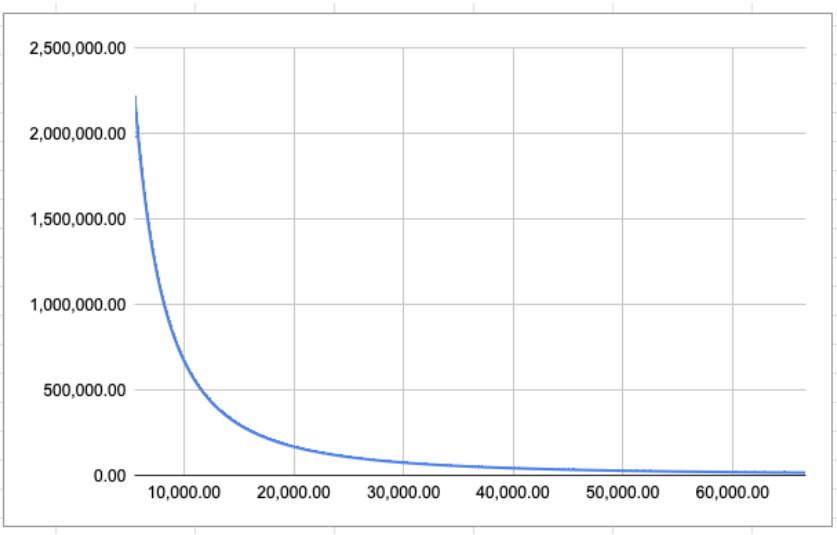
Caption

Let's take the example of the most familiar markets, namely the USD and IDR markets. On the current money market 1 USD is traded at 15,000.15 IDR. To make this pair on the AMM type market, you need to put 1,000,000,000 IDR and 66,666 USD to form a price of 15,000.15 IDR/USD.

	Price	Invariant	USD_pool	IDR_pool	IDR in	USD Out
	15,000.15	66,666,000,000,000.00	66,666.00	1,000,000,000.00		

If someone wants to buy USD in 15,000,000 IDR, he will get 985.21 USD, and the price will move to 15,453 IDR/USD as shown in the following table;

If this trade occurs continuously, it will look like the graph below

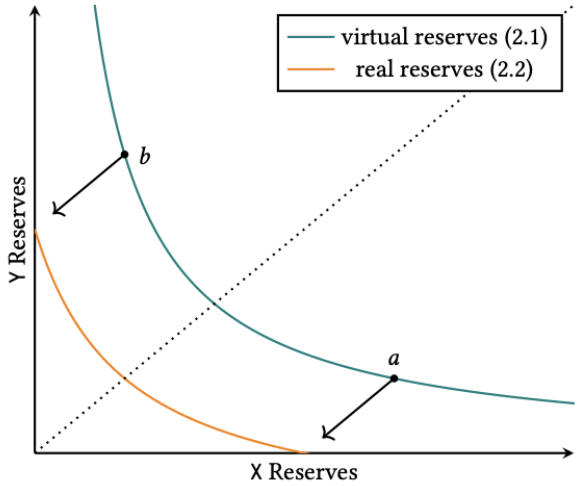


Here is the table corresponding to the above chart.

	Price	Invariant	USD_pool	IDR_pool	IDR in	USD Out
	15,000.15	66,666,000,000,000.00	66,666.00	1,000,000,000.00		
1.00	15,453.53	66,666,000,000,000.00	65,680.79	1,015,000,000.00	15,000,000.00	985.21
2.00	15,913.66	66,666,000,000,000.00	64,724.27	1,030,000,000.00	15,000,000.00	956.52
3.00	16,380.54	66,666,000,000,000.00	63,795.22	1,045,000,000.00	15,000,000.00	929.06
4.00	16,854.17	66,666,000,000,000.00	62,892.45	1,060,000,000.00	15,000,000.00	902.76
5.00	17,334.55	66,666,000,000,000.00	62,014.88	1,075,000,000.00	15,000,000.00	877.57
6.00	17,821.68	66,666,000,000,000.00	61,161.47	1,090,000,000.00	15,000,000.00	853.42
7.00	18,315.56	66,666,000,000,000.00	60,331.22	1,105,000,000.00	15,000,000.00	830.25
8.00	18,816.19	66,666,000,000,000.00	59,523.21	1,120,000,000.00	15,000,000.00	808.01
9.00	19,323.57	66,666,000,000,000.00	58,736.56	1,135,000,000.00	15,000,000.00	786.65
10.00	19,837.70	66,666,000,000,000.00	57,970.43	1,150,000,000.00	15,000,000.00	766.13
11.00	20,358.58	66,666,000,000,000.00	57,224.03	1,165,000,000.00	15,000,000.00	746.40
12.00	20,886.21	66,666,000,000,000.00	56,496.61	1,180,000,000.00	15,000,000.00	727.42
13.00	21,420.59	66,666,000,000,000.00	55,787.45	1,195,000,000.00	15,000,000.00	709.16
14.00	21,961.72	66,666,000,000,000.00	55,095.87	1,210,000,000.00	15,000,000.00	691.58
15.00	22,509.60	66,666,000,000,000.00	54,421.22	1,225,000,000.00	15,000,000.00	674.64
16.00	23,064.23	66,666,000,000,000.00	53,762.90	1,240,000,000.00	15,000,000.00	658.32
17.00	23,625.61	66,666,000,000,000.00	53,120.32	1,255,000,000.00	15,000,000.00	642.58
18.00	24,193.74	66,666,000,000,000.00	52,492.91	1,270,000,000.00	15,000,000.00	627.41
19.00	24,768.62	66,666,000,000,000.00	51,880.16	1,285,000,000.00	15,000,000.00	612.76
20.00	25,350.25	66,666,000,000,000.00	51,281.54	1,300,000,000.00	15,000,000.00	598.62
21.00	25,938.63	66,666,000,000,000.00	50,696.58	1,315,000,000.00	15,000,000.00	584.96
22.00	26,533.77	66,666,000,000,000.00	50,124.81	1,330,000,000.00	15,000,000.00	571.77
23.00	27,135.65	66,666,000,000,000.00	49,565.80	1,345,000,000.00	15,000,000.00	559.01
24.00	27,744.28	66,666,000,000,000.00	49,019.12	1,360,000,000.00	15,000,000.00	546.68
25.00	28,359.66	66,666,000,000,000.00	48,484.36	1,375,000,000.00	15,000,000.00	534.75
26.00	28,981.79	66,666,000,000,000.00	47,961.15	1,390,000,000.00	15,000,000.00	523.21
27.00	29,610.67	66,666,000,000,000.00	47,449.11	1,405,000,000.00	15,000,000.00	512.04
28.00	30,246.30	66,666,000,000,000.00	46,947.89	1,420,000,000.00	15,000,000.00	501.22
29.00	30,888.68	66,666,000,000,000.00	46,457.14	1,435,000,000.00	15,000,000.00	490.74
30.00	31,537.82	66,666,000,000,000.00	45,976.55	1,450,000,000.00	15,000,000.00	480.59
31.00	32,193.70	66,666,000,000,000.00	45,505.80	1,465,000,000.00	15,000,000.00	470.75
32.00	32,856.33	66,666,000,000,000.00	45,044.59	1,480,000,000.00	15,000,000.00	461.21
33.00	33,525.71	66,666,000,000,000.00	44,592.64	1,495,000,000.00	15,000,000.00	451.95
34.00	34,201.84	66,666,000,000,000.00	44,149.67	1,510,000,000.00	15,000,000.00	442.97
35.00	34,884.72	66,666,000,000,000.00	43,715.41	1,525,000,000.00	15,000,000.00	434.26

This occurs because the total money supply in circulation is not consolidated into a single market's liquidity pool. In other words, the liquidity in the market is limited.

As a result, the AMM model explains that their prices have a fair value within the upper and lower limits, as shown in the following image.



If prices fall outside of this fair value range, buyers or sellers may incur significant losses.

The AMM model's calculations would be accurate if all the money in circulation worldwide were concentrated in a single market, but this is highly unlikely to occur.

3.1.3. Front Running

One of the most prevalent attacks on AMM-based exchanges is front running. This occurs when attackers monitor pending transactions and place their own transactions ahead of them to manipulate the market and generate profits.

Front running typically involves executing a “sandwich” transaction. An attacker, aware of a significant upcoming transaction, places a buy order beforehand to drive up the price. When the anticipated transaction further increases the price, the attacker quickly sells their holdings at a profit. Attackers often obtain information from the mempool or other sources of pending transactions, making this a persistent issue in AMM exchanges.

3.2. Solution

3.2.1. The Enduring Market Philosophy: A Timeless Force Throughout Human Civilization

Before delving into our solution, it's essential to understand the enduring philosophy of market exchange, a concept as old as civilization itself. Whether in ancient barter systems or modern financial markets, the principles of supply, demand, and competition have always governed trade. DEXGOOD builds on these timeless principles by creating a decentralized platform that mirrors the fairness and transparency found in traditional market systems.

3.2.2. DEXGOOD Solution

Drawing from the above philosophy, DEXGOOD offers a solution that aligns with correct market mechanisms. DEXGOOD employs smart contracts to record all orders and store user assets on the blockchain, ensuring transparency and security. Unlike CEXs, which manage these processes internally, DEXGOOD uses blockchain as its database, making all transactions verifiable and immutable.
In DEXGOOD, all asset exchanges occur within smart contracts, and the order book is fully decentralized, with data stored on the blockchain. This transparency ensures that users retain full control over their assets and that all trading activities are conducted fairly and openly.

3.2.3. Front Run

DEXGOOD's smart contract model inherently prevents front running. Each pending order is assigned a unique ID, allowing users to reference the ID rather than entering a price. If an order ID is no longer available, the user's funds are returned without incurring any fees. This mechanism ensures fair competition in the market, eliminating the front-running advantage while maintaining a transparent and secure trading environment.
This version aims to clearly outline the challenges faced by CEXs and AMMs and presents DEXGOOD's solutions in a structured and compelling manner.

4. Feature: The Power of Web3 and Smart Contracts

The power of Web3 and smart contracts forms the backbone of DEXGOOD, enabling a decentralized, transparent, and secure trading environment. This section explores the key features that make DEXGOOD a pioneering platform in the decentralized exchange landscape.

4.1. Wallets

In DEXGOOD, users can connect to the application using various Web3 wallets without needing to disclose their private keys. This design enhances security, privacy, and user control over digital assets. By directly custodizing their assets within their wallets, users maintain full ownership and control, significantly reducing the risk of loss or theft inherent in centralized platforms.

4.1. Order Books

DEXGOOD operates with a decentralized order book system. Unlike centralized exchanges, where order books are managed internally, DEXGOOD stores all buy and sell data on the blockchain via smart contracts. The sequence of buy orders is arranged in descending order, with the largest orders first, while sell orders are arranged in ascending order, starting with the smallest. This system mirrors the familiar structure of centralized exchanges but with the added benefits of transparency and security provided by the blockchain.

Furthermore, the order book's decentralized nature allows developers and users to create their own front-end applications using Web3 code standards, fostering an open and collaborative ecosystem.

4.2. Historical Data

Every matched order on DEXGOOD is recorded and stored immutably on the blockchain, ensuring that the transaction history is secure and tamper-proof. This historical data can be leveraged to generate candlestick charts and analyze trading volumes, providing users with the tools needed for informed decision-making.

4.3. Social Features

DEXGOOD includes several social features that facilitate interaction between token holders and developers, enhancing transparency and trust within the community.

4.3.1. Token Page

The Token Page feature allows each token to have a dedicated page where key information is displayed. The smart contract must include a public function called owner, enabling investors to identify the token's owner and verify messages signed by the owner's key. This signature mechanism is crucial for establishing trust, as it ensures that messages and updates from the project owner are authentic and untampered.

4.3.1.1. Whitepaper

A whitepaper is a critical document for any initial coin offering (ICO), providing detailed information about the project, its technology, and development plans. It outlines the problem the project aims to solve, the proposed solution, and the expected outcomes. Additionally, it typically includes information about the project team, token economics, and the use of funds raised in the ICO. In DEXGOOD, the whitepaper is signed by the token's smart contract owner, further enhancing its authenticity and trustworthiness.

4.3.1.2. Website

A well-designed website serves as a central hub of information for a smart contract token. It provides details about the token's use case, development progress, and upcoming events or updates. The website is also a platform for attracting potential investors and facilitating token purchases. The link to the website is signed by the token's smart contract owner, ensuring that the information presented is verified and reliable.

4.3.1.3. Video

While optional, a promotional video can be a powerful tool for explaining and marketing a token to potential investors. Videos provide a visual representation of the token's use case and development progress, making it easier for viewers to understand and engage with the project. Additionally, videos can introduce the team behind the token, helping to establish credibility. The link to the video is signed by the token's smart contract owner, ensuring its authenticity.

4.3.1.4. Chat and discussion about Tokens

DEXGOOD includes a chat feature that allows users to communicate and discuss tokens. Each chat message is signed and stored in a regular database without requiring transaction fees. This feature encourages user engagement and interaction, fostering a vibrant community around each token.

4.3.1.5. News

Staying informed about market trends is crucial for anyone involved in cryptocurrencies. DEXGOOD provides a news feature that offers updates on the cryptocurrency market, helping users make informed decisions. While the cryptocurrency market is known for its volatility, having access to reliable news can provide valuable insights. The source and credibility of the news are important considerations, and DEXGOOD ensures that the information presented is trustworthy.

5. Business Continuity

To ensure the ongoing success and stability of DEXGOOD, we have implemented a comprehensive strategy centered around sustainable growth, transparency, and community-driven value. This section outlines our approach to tokenomics and profit sharing, ensuring that all stakeholders benefit from the platform's success.

5.1. Tokenomics: Building a Resilient Ecosystem

Allocation of Proceeds:

The proceeds from our token sale are strategically allocated to fuel the platform's growth. Funds are directed toward application development, server maintenance, marketing campaigns, and influencer partnerships, as well as compensating our dedicated team. This multi-faceted approach ensures that DEXGOOD remains competitive and continues to innovate in the rapidly evolving decentralized exchange landscape.

Distribution Strategy:

Our token distribution strategy is meticulously planned to maintain equilibrium within the ecosystem. By carefully managing the supply and utility of our tokens, we foster an

environment that encourages adoption and rewards long-term holders. This approach not only strengthens the platform's foundation but also aligns the interests of all participants.

5.2. Sharing the Success: A Unique Profit Distribution Model

Unlike traditional token programs that offer fixed returns, DEXGOOD takes a more dynamic and transparent approach to profit sharing. Our model ensures that token holders directly benefit from the platform's success, with distributions that reflect the actual performance and profitability of the exchange.

Profit Allocation:

A significant portion of our profits is reinvested into operational costs and further development of the platform. However, we believe in rewarding our community, which is why 40% of the profits are distributed among token holders. This distribution is proportional to the number of tokens held, providing a fair and consistent return on investment. This model not only incentivizes holding but also aligns the success of our users with the growth of DEXGOOD.

Flexibility and Transparency:

Our profit-sharing mechanism is designed to be flexible, adapting to the market's needs while maintaining transparency. All distributions are recorded on the blockchain, allowing token holders to track their earnings and ensuring that the process remains open and verifiable.

By combining a robust tokenomics strategy with a transparent profit-sharing model, DEXGOOD is positioned to not only survive but thrive in the competitive world of decentralized exchanges. We are committed to building a resilient ecosystem that delivers value to all participants, ensuring that DEXGOOD remains a leader in the industry for years to come.

6. Special Attention to White Hackers

Despite the rigorous design and testing of the DEXGOOD platform, human error can sometimes lead to overlooked vulnerabilities. To enhance security and ensure the robustness of the system, DEXGOOD invites white hackers to collaborate and identify potential issues.

We offer a bounty program with rewards varying according to the severity of the bugs found. Bugs are categorized into large, medium, and small:

- Large Bugs: Receive 100% of the tokens that constitute our profits from one buyback period.
- Medium Bugs: Receive 50% of the tokens from one buyback period.
- Small Bugs: Receive 20% of the tokens from one buyback period.

This bounty program encourages ethical hackers to help improve the platform's security, contributing to a safer and more reliable exchange.

7. Closing Remarks

The DEXGOOD business model has been carefully designed to avoid fraudulent activities while generating profits from each transaction. It's important to note that this application is not a get-rich-quick scheme. Although the platform's calculations and mechanisms are robust, investment always carries inherent risks. DEXGOOD and its developers cannot be held liable for any losses that users may incur.

The platform utilizes tokens that are traded with the main tokens of the application's network, such as Ethereum, Arbitrum SmartChain, and other EVM-compatible networks. We consciously avoid yield staking due to the substantial risks it carries. Instead, DEXGOOD implements a buyback mechanism, allocating 60% of the profits to this purpose. This eliminates the need for financial maneuvers to promise payments, as the funds are already available and ready for distribution.

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