Comdex

Democratizing Finance

Abhishek Singh and Siddarth Patil

Litepaper

ABSTRACT.

Comdex presents a synthetic asset creation and exchange protocol. This protocol plays a crucial role in Comdex's mission to democratize finance. The creation of digitally tradeable representations of a wide range of assets enables investors to have global accessibility in finance. Built with the core fundamentals of interoperability, Comdex's ecosystem of solutions can work synergistically to aggregate liquidity from multiple DeFi ecosystems and facilitate its flow into *CeFi*. Synthetic assets lay the foundation for fulfilling this vision by creating bridges to Crypto ecosystems and financial instrument markets.

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1. Introduction

Investors today lack access to an extensive range of asset classes due to censorship, limited global accessibility, liquidity constraints, and high transaction costs. The advent of DeFi has brought with it a wave of products that enhance investors' access to a broad range of financial products on public ledgers. At the heart of this movement is the tech that enables digital representations of financial assets that can be tracked and traded on immutable blockchain ledgers. Digital token of assets enables global accessibility, improved liquidity, and reduced transaction costs.

While DeFi does enhance access for crypto investors to a broad range of financial services, the avenues for investment remain restricted mainly to on-chain assets. Few products can build bridges for crypto-assets and real-world financial assets, allowing for the movement of capital from the DeFi ecosystem to CeFi (centralized finance). Even within the realms of CeFi, there exist several regulatory obstacles and restrictions to access stable, inflation-resistant assets and debt products.

Apart from the need for bridges between the crypto and CeFi, the proliferation of various crypto assets needs bridges that facilitate the seamless portability of these assets across different chains. Cosmos addresses it with its IBC (inter-blockchain communication) protocol, a standard for data and token exchange between native chains. By leveraging IBC, the decentralized synthetics protocol will allow users to access a range of inflation-resistant synthetic assets through Comdex.

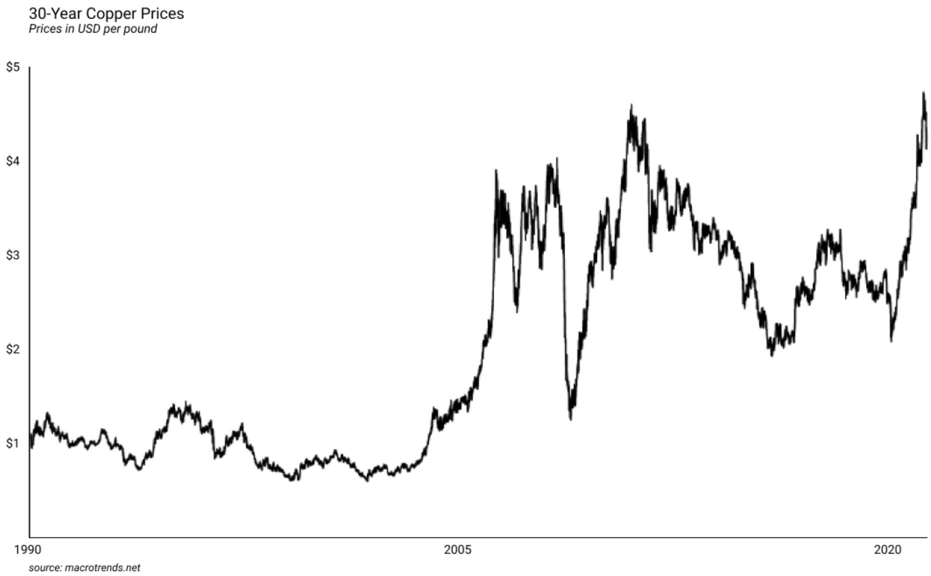
2. Comdex Synthetics Exchange

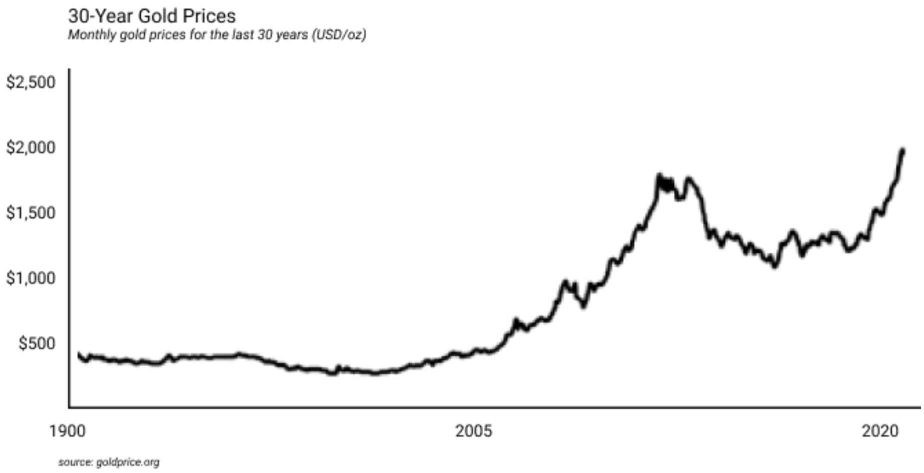
2.1 Commodities

The commodities trade industry is a $ 17 trillion industry and is the unquestionable lifeblood of the global supply chain. More than 80% of the annual commodities trade volume relies on financing to enable traders to meet working capital requirements. However, lack of access to capital leads to a massive gap in financing, which houses an opportunity to create bridges from alternative sources of capital.

In the same way that technology has digitized the trade of equities or forex. It has made these assets and derivatives accessible to the investor. We are at the cusp of a revolution centered around increasing global accessibility to dynamic commodity-related investment vehicles for investors. With interest rates at historically low levels globally, investors often fail to beat inflation through the "safe" assets they can access domestically. As a result, investors seek speculative and high-risk asset classes to make returns enough to sustain above inflation.

The commodity trade and trade finance industry represent the quintessential example of an industry that can offer investment vehicles centered around the trade and financing of products that possess an incontrovertibly intrinsic and inherent value.





2.2 Problems With The Industry

Despite being an enormous industry of global significance, commodities trade & trade finance are still primarily marred by inefficiencies and vulnerabilities. The onslaught of the Covid-19 pandemic has left the industry with a $3.4 trillion financing gap. The key factors behind this trade financing gap are the lack of trust and efficiencies between buy-side and sell-side financing.

On the sell-side of trade finance, regulations play a huge part in slowing down the speed of transactions with added due diligence and verification needs. The industry is faced with severe distrust among stakeholders as it is still heavily reliant on paper-based documentation for trade execution. Such manual and cumbersome systems are heavily prone to errors and fraud, which malicious actors have at several points exploited. These factors have created a positive feedback loop where regulations get tightened as the prevalence of fraud and errors increases, causing a large portion of the borrowing market to be underserved, pushing some to default on deliveries and payments in business.

Even on the buy-side of trade finance, investors face several challenges and restrictions in accessing financial assets and debt products. At present, investors lack open access to trade finance debt products without having specific qualifications and eligibility criteria. These restrictions alienate a large group of investors to an asset class with inherent and tangible value. In the backdrop of the macroeconomic environment (at the time of writing this paper), where equity markets lack correlation to economic performance, investors need safe avenues of investment that can outperform inflation in the long run.

Investors and asset/debt originators also suffer from the low liquidity of the assets they hold. By being fundamentally backed by receivables, debt-based investment vehicles in trade finance cannot give investors liquidity before maturity due to the lack of thriving secondary markets for trade finance debt. Their complex underlying payment structures are significant in making trade finance debt a highly illiquid asset class.

2.3 Synthetics

In traditional finance, derivatives are arrangements between two parties based on an underlying asset. Derivatives allow investors to take speculative positions without having to take direct exposure to the underlying asset. The use of derivative representation of underlying is a practice that dates back centuries and finds its origins in commodities trade, where merchants often used physical objects as representatives of contracts for units of agricultural goods. These representations helped the merchants and farmers hedge against the future movements of prices of commodities.

On Comdex, synthetics are tokenized derivatives that provide exposure to the price movement of real-world assets through creation of collateralized debt. Through synthetics, investors can provide liquidity, borrow and speculate with a range of assets. Therefore, synthetic assets have a crucial role to play in our mission to democratize finance. Comdex has already built the capabilities to help enhance the access of SME & MSME borrowers in commodities trade to trade finance. However, to truly improve their access to finance, there is a need for bridges to alternative sources of financing.

2.4 Why Synthetics?

With most major developed economies' sustained expansionary monetary policies, consumer savings rates and inter-bank lending rates have fallen close to 0%. The surplus creation and availability of fiat have led to a widespread inflation problem, causing a consistent decline in the purchasing power of most fiat currencies. Despite weak fundamentals, equity indices in most countries have been creating newer peaks, severing any relationship between fundamental economic data and stock market performance. As a result, investors worldwide need access to investment products focused on transparent, tangible, and pragmatic value.

Comdex's journey towards opening financial markets and growing investors' access, progresses by creating the synthetics protocol. Through synthetics, Comdex will innovate to enhance investors' access to a broad range of asset classes and generate a higher yield from safer avenues for investment.

Having a thriving market of synthetic assets enables the creation of tradeable synthetics of illiquid debt assets like trade finance receivables. Synthetics will also solve fractional ownership of illiquid assets, as investors can access liquidity without the nuances of the real-world structures. Creating applications supporting the minting of synthetics allows for compatibility across a broad range of investment vehicles. Through an interoperable ecosystem, synthetics can build the bridge for the flow of liquidity across participants in the financial markets.

Synthetics also help design various derivative contracts that can enable globalized access to every asset for every investor. A broader range of derivative synthetics would also allow investors to diversify their exposure and hedge their positions through strategies.

The DeFi movement has democratized finance: enhancing access of crypto investors to a range of financial services. Comdex embodies the ethos of inclusivity by reducing complexity and barriers to investment in the realm of financial assets that are difficult to access for investors. By creating bridges for capital flows within Cosmos and creating a gateway to a range of traditional asset classes, Comdex has the potential to tie together the world of DeFi and CeFi, thus broadening the scope of investment possibilities for crypto native and traditional investors alike.

2.5 The Protocol

The Comdex synthetics exchange facilitates the creation and trading of synthetic assets on-chain. Minted synthetics on the chain are called '*cAssets*.' Each commodity listed on the platform has its own unique '*cAsset*' token tradable on the *'cSwap*,' which is the AMM module of Comdex.

The key stakeholders involved on the platform include:

1. **Traders**- Traders are users of the platform who intend to profit on the movement of the prices of cAssets on cSwap.
2. **Minters/Borrowers**- Minters are users who create the initial liquidity of cAssets on the platform. These users can lock up a range of Cosmos assets to *mint* cAssets. The collateralized debt position (CDP) created can be closed when the user returns the cAsset debt to unlock their locked collaterals.
3. **Liquidity Providers**- These users intend to earn trading fees and CMDX token rewards by providing liquidity in the form of cAsset pairs to liquidity pools on the cSwap. Users can provide long or short position-based liquidity for each listed cAsset.

This system can facilitate the tokenization of real-world assets with fewer hurdles than traditional derivatives markets. Due to geographical and regulatory limitations, investors today lack the freedom to access a large set of financial assets. Creating synthetic assets enables a seamless flow of capital between such asset classes.

3. The CMDX Token

The CMDX token is the native token of the COMDEX chain. The token serves the following core functions of the chain-

- **Governance:** Users of Comdex and holders of the CMDX token are empowered to operate and control various parameters of the platform. Governance also allows for modifications of key parameters such as fees, cAsset set, etc.
- **Transaction fees:** A fee for transactions on-chain and various platform fees are collected to compensate validators and make attacks on the network costly.
- **Rewards:** An incentive for early adopters and those performing critical functions of the network by providing liquidity to the cSwap pools.
- **Stability:** The CMDX token will have an algorithmic relationship with each synthetic asset to maintain the strength of the price pegs.

4. The Vision for Comdex

Comdex now sits at a pivotal point in its journey as a project built to create open access to finance. The enterprise trading platform of Comdex enables SMEs and MSMEs in the industry to build the trust needed to ease and enhance their access to financing. ShipFi will be the first of Comdex's bridges between DeFi & CeFi, facilitating the creation and exchange of synthetics of illiquid trade finance debt products. The synthetics protocol lays the technological and the financial foundations for building bridges between the realms of DeFi & CeFi.

Comdex lays the foundation for a future where the entire lifecycle of commodity transactions can be performed seamlessly and accessed by all. The enterprise platform will serve as an on-ramp for digitization of commodity trades, which can then be financed by creating synthetic assets representing the debt, which are then sold to investors through ShipFi. The technological architecture that will facilitate this will support the on-ramp and democratization of an extensive range of illiquid financial assets in the future.

Innovation is an integral part of every solution that Comdex builds. One such key innovation that Comdex will drive is by allowing the creation of synthetic debt with yield-generating collateral through integrations with various liquidity protocols. This innovation will ensure users of the platform can earn a yield on their locked collateral assets, effectively repaying a portion of the outstanding synthetic debt over time.

As is the case with CeFi markets, liquidity plays a crucial role in DeFi in allowing investors and users to access a range of financial products and services. Given the high importance of liquidity, Comdex utilizes intelligent and algorithmic, options-based liquidity mining incentivization. Liquidity providers on Comdex are rewarded with call options to purchase CMDX from the protocol at a discount. This mechanism prevents *liquidity locusts* from draining liquidity due to shifting mining incentives while helping establish a price floor for CMDX in the market.

The ability to create a synthetic representation of financial assets opens the door for application across a vast set of industries. ShipFi is one such door that makes bridges to illiquid trade finance investment vehicles. Comdex will integrate across various apps through its inherent interoperability to enable origination, liquidation, and exchange of trade finance debt, accessible to all. Such a synergistic ecosystem is achievable due to the interoperable architecture of the Cosmos SDK.

As Comdex grows and expands capabilities, bridges will be built to include a more extensive set of financial assets to be accessed in its democratized ecosystem. Like ShipFi, Comdex can facilitate the on-ramp of illiquid debt assets from industries like real estate and private equity. Comdex will enable the digitization, exchange, and financing of other physical and illiquid assets like the enterprise trading platform.