DivBox: A platform for growing long-term crypto holdings

Abstract. Although holding cryptocurrencies in a private wallet provides the best security, lying them idle doesn't generate any interest, and that's a problem for long-term holders who are trying to maximize their stake. By not earning any interest on their crypto, these holders are missing a golden opportunity to put time in their favor throughout the accumulation process. In this paper we introduce DivBox, a platform that helps long-term holders increase their coins without giving up their private keys to centralized third-party entities. In order to do so, the platform leverages the smart contract capabilities of the Ethereum network and also a secure and battle-tested decentralized lending protocol.

Earning interest in traditional markets

In traditional markets, the simplest way one can earn interest on their money is by depositing it in a bank. The bank will lend out that money to other people and require them to repay the loan with an interest rate. When borrowers pay back the bank, the bank takes its cut and passes in some interest to the original depositor. In this scenario, the depositor not only needs to trust the bank with the funds, but has no choice other than accepting whichever rates the bank is willing to pay. Cases where depositors may get a near to zero or even a zero percent interest over their money are pretty common, making the banks the only true beneficiaries.

People can also purchase stocks with the future expectation to receive more money than what they initially invested. That might be the case if the price of the stock goes up, but it's particularly true when people expect to receive part of the company's profits distributed as dividends while they hold the stocks. In this scenario, investors are exposed to all inherent risks of the company business, and they can even lose money due to the speculative aspect of such investment. Investing takes time, effort and good risk management to avoid losses and maximize returns.

Earning interest in the crypto world

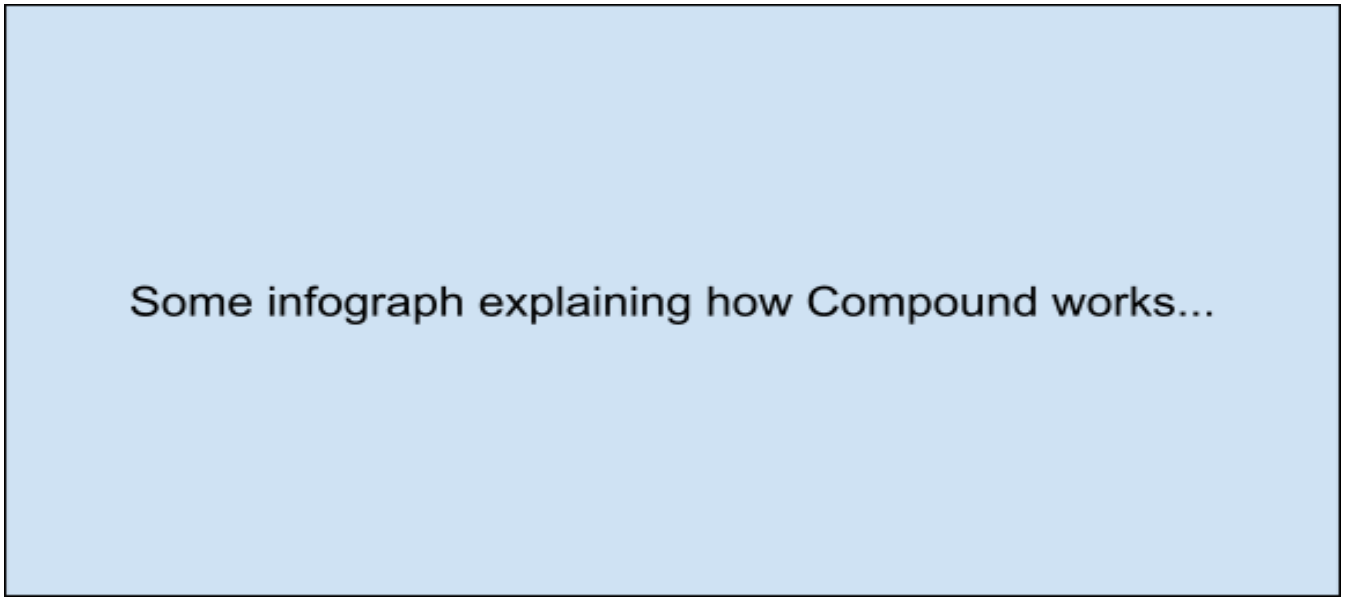
With the surge of cryptocurrencies and smart contracts, we're presented to a new world with endless opportunities to reinvent financial products with the help of transparent,

incorruptible and autonomous financial agents that can be programmed to follow certain rules. In that context, we have a wide variety of lending protocols that, powered by smart contracts, allow borrowers and lenders to interact in a decentralized environment where the power to supply and borrow assets, and the ability to earn interest on deposits are no longer in the hands of a few financial institutions, but rather distributed among thousands or even millions of people. Equipped only with their private wallets, these people can actively participate in a global market with opportunities that simply didn't exist before.

Compound: secure and decentralized lending protocol

Among the smart contract based lending solutions out there, Compound[1] stands out as one of the first and more secure ones that runs on the Ethereum[2] network. Compound currently manages billions of dollars worth of assets, and has gone through several audits that evaluated the security, correctness and sustainability of their protocol.

The following chart summarizes how it works:



1. Users deposit their assets into the lending protocol with the expectation to earn a variable interest rate on their deposits.
2. The protocol makes these assets available to other people who are willing to borrow them. In order to do so, they must provide a collateral — made of crypto assets — which acts like an insurance that they can pay back the loan.

3. Borrowers are incentivized to always keep their collateral above a certain threshold, otherwise that collateral can be liquidated in the market to honor the borrower's debt.
4. Besides lenders and borrowers, another critical participant of this decentralized protocol are the liquidators: these are people or even automated bots which are constantly looking for borrowers whose collateral stands below the required threshold, triggering the liquidation of part or all of the borrower's collateral, avoiding the default risk in the platform. Liquidators play a core role in the platform and they have a financial incentive to perform that job.
5. At any time, depositors may withdraw their money together with any earned interest, directly in their private wallet.

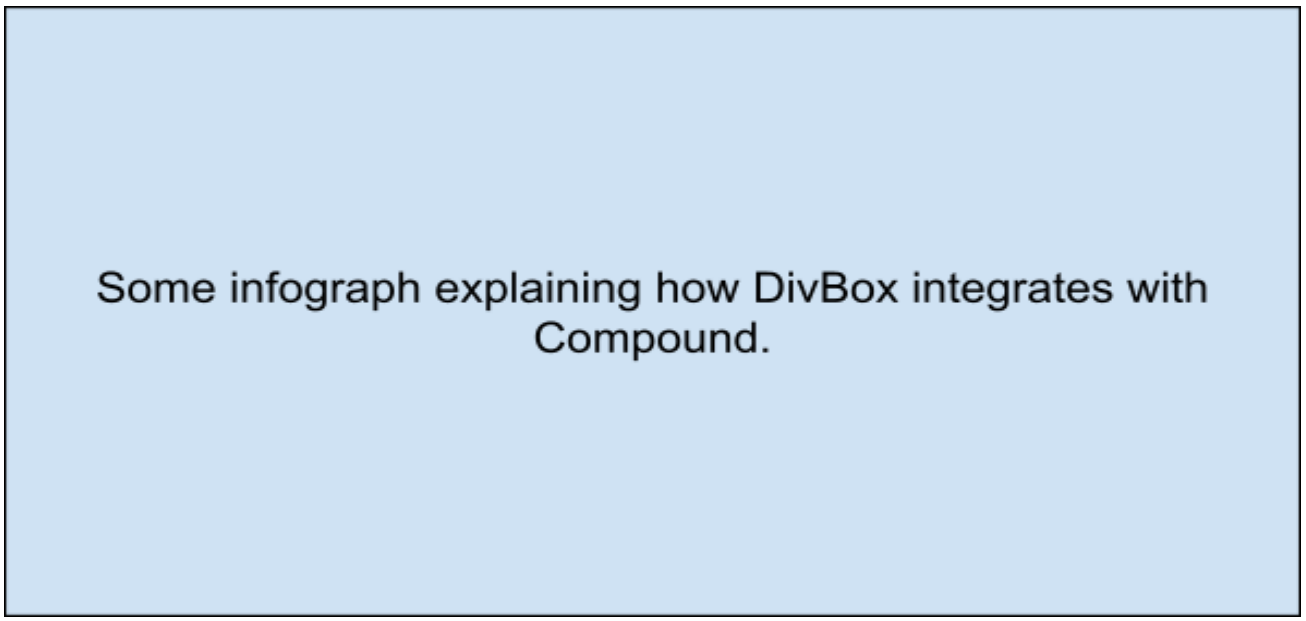
All of that process is governed by smart contracts with an immutable, transparent and well-defined set of rules. That means that, just by acting with their best interest in mind, participants of the protocol run this autonomous machine that cannot be stopped or be tampered with.

DivBox: earning with shares appreciation and dividends

DivBox is a smart contract that is built on top of Compound, leveraging the power of this battle-tested lending protocol on the Ethereum network. In this section, we'll explain how long-term holders can benefit from it.

Just like in the stock market, people can buy shares in DivBox with the expectation that these shares will go up in value. Unlike the stock market, though, buyers aren't exposed to the speculative nature of a company business, rather, their funds are automatically put to earn interest in Compound by the smart contract. That means that, as long as people have shares in DivBox, these shares will always go up in value since they'll be automatically collecting the interest paid by borrowers from Compound. At any time, people can also sell their shares: in this case, DivBox which will automatically pull funds from Compound with any accrued interest and transfer all the funds directly to the user's wallet, in a seamless manner.

The figure below illustrates how DivBox integrates with Compound:



[TODO]: explain how dividends are generated in DivBox...

Future work

[TODO]: mention that we can expand the platform for other assets (especially stablecoins) and the possibility to integrate with other crypto providers like exchanges and wallets.

References