AMPERA

THE DEFI PRIMITIVE FOR ON-CHAIN COLLATERAL

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HISTORY

3000 BCE

Collateral emerged as a way to secure loans in ancient Mesopotamian societies. The Code of Hammurabi, dating back to 754 BCE, contained laws related to collateralized loans and established legal protections for both borrowers and lenders.

500-1500 CE

As trade expanded in Europe during the Middle Ages, the concept of collateral became increasingly important. Merchants used their goods as collateral for loans to fund trade expeditions, and the concept of the "pawnshop" emerged, where people could obtain short-term loans by pledging personal items as collateral.

1901-2014

Collateral continued to evolve in the modern era, with the rise of sophisticated financial instruments and securitization. Collateralized debt obligations (CDOs) and collateralized mortgage obligations (CMOs) became popular in the late 20th and early 21st centuries, although they contributed to the 2007-2008 global financial crisis.

753 BCE-476 CE

The Roman Empire further developed the concept of collateral, with loans secured by land or other valuable assets. The Roman legal system formalized the process of pledging collateral and established rules for the seizure and sale of collateral in case of default.

1800-1900 CE

The development of modern securities markets and the growth of mortgage lending led to the widespread use of stocks, bonds, and real estate as collateral. During this time, central banks began to hold collateral in the form of government bonds as backing for the currency they issued.

2015-PRESENT

Ethereum launches, setting off the cambrian explosion known as DeFi. Smart-contracts allow for decentralized lending protocols. The need for a better, more universal form of collateral emerges.

INTRODUCTION

As the world of decentralized finance (DeFi) continues to evolve, the risks of trusting counterparties have been starkly highlighted. An opportunity has arisen to develop a groundbreaking DeFi primitive, expanding the concept of permissionless collateral.

Enter Ampera, an asset-agnostic permissionless collateral platform that enables endless applications and innovation within DeFi.

COUNTERPARTY RISK

The failures of centralized exchanges, institutional lending firms, and hedge funds have made clear that counterparty risk continues to impair the utility of digital assets, despite their foundation of trustlessness. These failures toppled some of the most well-respected firms and projects as hidden risks manifested into cascading losses.

Despite the recent setbacks, these centralized entities can provide valuable services to the industry. They often serve as the bridge between institutions outside of crypto, and enable a greatly simplified user experience. We need to provide tools to reduce counterparty risk while interacting with traditional finance (TradFi) and centralized service entities.

HOW DOES TRADFI REDUCE COUNTER PARTY RISK?

- Repurchase agreement (repo) transactions, comprising a $12T+ market globally, often rely on clearinghouses whose sole responsibility is to ensure the safety and independence of collateral. Clearinghouses also include "haircuts" on the valuation of the collateral, ensuring that if the assets decrease in value, there is sufficient liquidation allowance to cover loans. Additionally, clearinghouses employ a system of requesting maintenance margin to support loan health.

- Letters of credit are used in the trade finance industry, in which a bank will guarantee payment to a counterparty (underpinned by quality collateral) on behalf of a buyer once certain predetermined conditions are met.

- Escrow is used in real estate property sales. The escrow agent holds buyer funds until the seller meets certain conditions, such as providing clear title to the property. This helps protect both parties from potential fraud or non-performance.
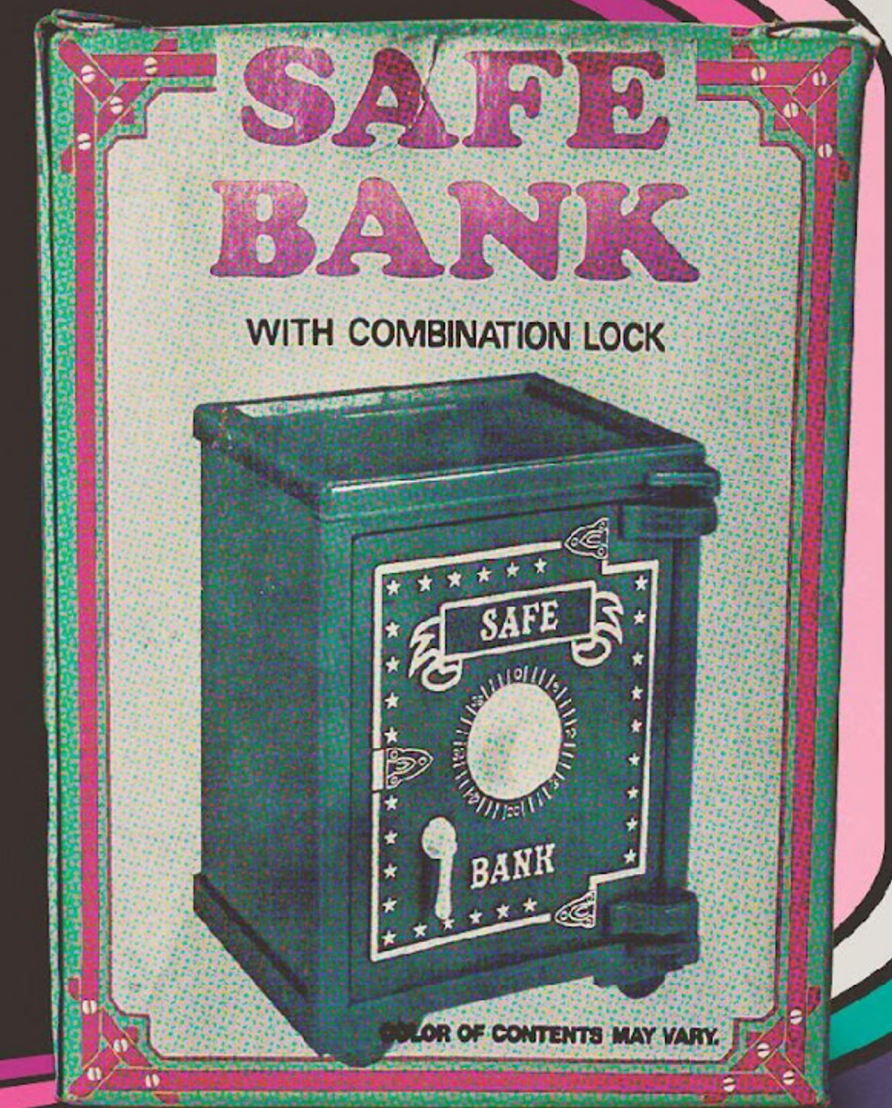
These systems have been successful because a neutral, trusted third party oversees the collateral and payment. Ampera can similarly reduce counterparty risk through smart contracts, without the trusted third party intermediary.

PERMISSIONLESS COLLATERAL

The Ampera protocol reduces counterparty risk through open-source, trustless smart contracts. When a user assigns collateral with Ampera, counterparties have complete assurance that funds will ultimately be claimable. Correspondingly, users can reduce their counterparty risk by keeping assets off of the books of centralized entities.

With a generalized collateral platform, Ampera can enhance nearly every DeFi experience. Bridging can be quicker; market makers can more effectively arbitrage prices across CEXs, multi-chain DEXs, all while reducing counterparty risk across the ecosystem. With the utilization of an on-chain collateral protocol, the possibilities are endless.

AMPERA USECASES

Permissionless, trustless collateral unlocks a variety of immediate uses:
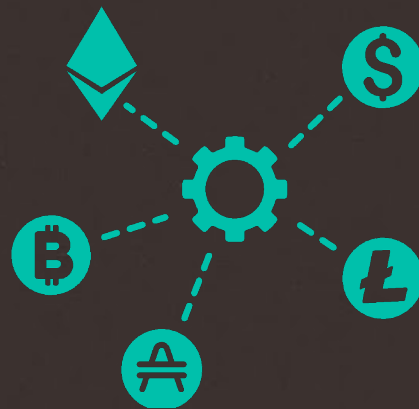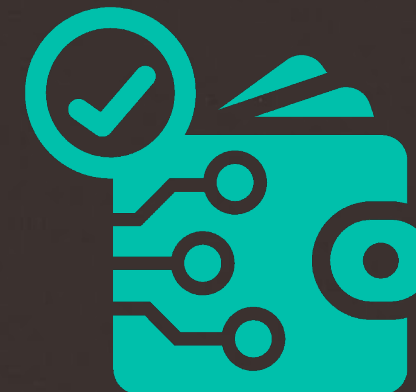
BRIDGING

Instantly issue cross-chain assets with confidence.

MARKET MAKING

Keep more assets out of shared accounts and off of centralized exchanges.

PAYMENTS

Instantly authorize payments for fast and efficient purchases of all sizes.

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