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Case Study of Lykke Exchange: First Experiences and Outlook

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Abstract

Lykke Corp is a fintech company based in Zurich that has launched the first global marketplace for all asset classes and instruments, using the Colored Coin protocol on blockchain. The paper explains the architecture of the exchange and first use cases. We discuss, how the exchange will evolve over time. We explore the macroeconomic benefits of the new technology. The Lykke exchange operates similar to JAVA in the sense that it is compatible with any type of blockchain; marketplace was first developed on blockchain of Bitcoin, but is currently expanded to Ethereum.

Every financial instrument can become a listed security on the blockchain in the form of a digital token, through the so-called Colored Coin protocol. Colored coins follow the idea of "coloring" a specific Bitcoin – the issuer guarantees to hand out the underlying assets to the person, who returns the Colored Coin. For example, the Federal Reserve (FED) can issue a colored coin in the same way as it prints paper money; it would take a fraction of a Bitcoin and then insert the "I Owe You" statement of the FED, like a regular bank note. The same mechanism can be used for any other financial claim. Colored Coins are different in nature than crypto-currencies, because they have a specific issuer and are backed by a real financial asset.

Reporting of colored coins in traditional banking software systems, such as bookkeeping and risk management is straightforward, because every colored coin can include an International Securities Identification Number (ISIN), thus can be treated as any other financial instrument, fully compatible with existing back-office systems. Financial institutions can create colored coins for existing financial products and gradually move business processes to blockchain. They can operate the old and new system in parallel and switch over to the new system at their own pace. In the new system, interest rate payments are second by second improving liquidity provision.

Lykke has launched the exchange initially for the main currencies, the Lykke coin (shares of Lykke) and started two innovative projects: colored coins for music rights and colored coins for CO₂ certificates. Future projects include crowd-funded loans for retail and Small and Medium-Sized Enterprises (SME).

Lykke exchange and all its tools and services are open source; the transparency of technology is ideal for research. The paper provides a high level overview of the exchange, reports on initial experiences and feedback of users. The paper concludes with a research agenda.

Keywords: blockchain, colored coins, exchange