

Optimal Design of Tokenized Markets

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Abstract

Trades in today's financial system are inherently subject to settlement uncertainty. This paper explores tokenization as a potential technological solution. A token system, by enabling programmability of assets, can be designed to eradicate settlement uncertainty. We study the allocations achieved in a decentralized market with either the legacy settlement system or a token system. Tokenization can improve efficiency in markets subject to a limited commitment problem. However, it also materially alters the information environment, which in turn aggravates a hold-up problem. This limits potential gains from resolving settlement uncertainty, particularly for markets that depend on intermediaries.

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