

## Asset Tokenization and Related Problems

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**Abstract**—For a number of years, the authors have been working in the sphere of asset tokenization, especially in connection with precious metals. An approach (including algorithms, mathematical models, and software implementation) to the gold reserve management problem has been developed. This approach allows to effectively manage the gold reserve, taking into account the fact that the faster the money is turned over, the less gold is required to ensure the functioning of the financial system. Moreover, the transfer of payments to the online mode dramatically reduces the need for working capital and, hence, the amount of gold required for it. The authors consider the provided algorithms as a very important part of a possible gold-backed settlement system that allows to solve the problem of organizing international payment transactions between countries in their national currencies to avoid the dominance of a single fiat currency.

**Keywords:** gold reserve, gold standard, resource management, tokenization.

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