



CHRISTIAN SCHÄFER

Bringing Blockchain to Corporate Finance

A Smart Contract for Corporate Bonds



Econobooks

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Abstract

The objective of this master thesis is to examine the technical feasibility of a possible blockchain use case: A smart contract that enables the issuing and trading of corporate bonds without intermediaries. The key features for the smart contract have been derived from the payment mechanisms of a bond and the standard for token contracts established within the Ethereum developer community. The contract's source code is written in Solidity, an object-oriented, Turing-complete programming language, influenced by JavaScript and C, and designed for Ethereum applications. The coding and testing of the smart contract have been done in the integrated development environment Remix. The requirements for the smart contract could be implemented successfully, as confirmed by the documentation of two simulations.

Inhaltsverzeichnis

Abstract	III
Tabellenverzeichnis	V
1 Introduction	1
2 Smart Contracts	3
2.1 Solidity	4
2.2 Tokens.....	6
2.3 ERC20 standard.....	6
3 Corporate Bonds.....	8
4 Requirements for the Smart Contract.....	10
5 Remix.....	11
6 The Bond Token Smart Contract.....	15
7 Simulations.....	26
7.1 Simulation one	26
7.2 Simulation two.....	44
8 Evaluation of the smart contract.....	52
References	54
Internet references.....	54
Appendix.....	60

Tabellenverzeichnis

Table 1: Used Solidity Operators in bond contract.....	6
Table 2: Cumulative coupon payments from issuer to investor after each period.	8
Table 3: Cash flow in Ether per investor and period.....	26
Table 4: Cumulative coupon payments in Ether per investor and period.	27
Table 5: Cash flow in Ether per investor and period.....	45
Table 6: Cumulative coupon payments in Ether per investor and period.	45

