DAB

Decentralized Autonomous Bank

August 6, 2017

v0.1

Tao Feng

Abstract—

CONTENTS

I. INTRODUCTION

A bank is a financial institution that pools social wealth and resources to make events. In a way, the banking system helps promote economic prosperity and assures assets safety: loaning starting capitals for start-ups and entrepreneurs, at the same time generating interest for depositors. However, traditional structures and modes of economy have been changing with the advent of new technologies, like Block Chain and Smart Contract. In recent years, people have gradually got accustomed to various types of virtual currencies and applications based on them, which have not been administrated or supervised by a bank-like system. Thus, a call for banking systems of virtual currencies arises. On the hand, traditional banks hold a large share of the profit, which should have belonged to both depositors and loanees. Besides, People are not contented with this hierarchical administration because of its low efficiency and manifold restrictions. The procedures of loaning take numerous risks assessment and audit work. These complicated and repetitive operations increase unnecessary costs both in labor and in material, adding to inconvenience of a loan. Therefore, we propose a self-governed banking system transplanted on Block Chain, naming **Decentralized Autonomous Bank**, **DAB** for short. This will be the first crowdfunded Ethereum banking system on Block Chain in history. The main contributions of this program are as follows:

- The proposed banking system is **crowdfunded** by common users rather than authorities. With Block Chain technology, data of transactions generated by users can be recorded more accurately, and meanwhile these records can neither be modified nor be checked by anyone, assuring reliability and security.
- The proposed banking system transforms the abstract concept, "credit", into measurable units for new asset class of "**tokens**" that are typically issued in Initial Coin Offerings (ICOs for short) through smart contracts to cut out unnecessary procedures for assessment and approval.

- As the first **Ethereum bank** on Block chain, users of which can enjoy relatively high interest when depositing their Ethereum in the bank and cheaper yet more convenient loaning services than one can do in actual banks.

The rest of this paper is structured as follows. Section 2 gives a detailed instruction of DAB. How the banking system will be crowdfunded, established and finally put into operation is presented in Section 3. Based on the system, section 4 describes the expected outcome in the market of Ethereum. Sections 5 refers to recent work and our progress on DAB. Section 6 provides a list of terminologies concerned in the paper.

II. CONCEPTS AND FUNCTIONS

As mentioned above, not only users can deposit, withdraw, lend, loan or repay Ethereum more cost-effective in this crowdfunded DAB, but also procedures on risks assessment and credit approval are simplified. To realize these regular functions, a group of new concepts are needed in this banking system, which contains four types of tokens, two sub-banks and two main contracts.