

Application of Block Chain in Global Trade and Finance

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Abstract: *the block chain constructs a decentralized trust and collaboration system. The emergence of block chain technology effectively solves the problem that trust and value cannot be transferred in the Internet era, which makes information have value and guarantees the rights and interests of information producers. This paper briefly introduces the basic concept of block chain, and then expounds the application value of block chain technology in the field of global trade and finance.*

Keywords: *block chain; global trade; finance;*

1. Block Chain

Block chain is essentially a decentralized database, which has the characteristics of multi-party participation, joint maintenance, transparency, non-tampering, consensus mechanism, encryption algorithm and so on. The main function of the block chain is to store the information. Anyone can join the block chain network and write the information to the block chain. In the block chain, there is no central node, and each node is equal and holds the entire database. Block chain uses distributed node consensus algorithm to generate and update data, and then uses cryptography to ensure the security of data transmission and access.

The block chain consists of a number of contiguous blocks, and each time a user writes data, a block is created. Each block consists of a block head and a block body. The block header records the meta-information of the current block, such as generation time. The block is mainly the actual data. In order to ensure the reliability of the data in the block chain, it takes at least 10 minutes for the new data to be written into the block chain, and more time is needed for more nodes to synchronize the data.

2. Application of Block chain in Global Trade

2.1 Solve the credit problem

In global trade, the trade policy and financial environment of different countries

are different, so the trust between the main trading bodies of different countries is very low. In order to protect their own rights and interests, each trading body can only sign a variety of paper bills, and need to go through a very cumbersome process. There is also a mismatch between the flow of goods and documents in global trade, which exacerbates credit risks in global trade. In the face of these problems, block-chain technology can protect the security of various documents in the course of trade. Due to the transparency and non-tampering characteristics of the block chain, trade documents are highly creditworthy in circulation, which can effectively reduce the issuance of fraud in trade.

2.2. Cargo tracking

Depending on block chain technology, each trade entity can view trade data in real time on the network platform based on block chain. After the delivery of the goods, the shipper can also track the movement of the goods in real time through the platform, so that the supply chain of the goods can be tracked. In addition, if there is a problem in the intermediate link, the trade parties can also trace back to each step quickly. And find out which link went wrong.

2.3 Enhancing trade reliability

Blockchain technology has the characteristics of security, transparency and tamper-proof. If the shipper records the information in the block chain, the information cannot be usurped and the execution of the contract is not deemed to be interfered with. The parties may verify at any time and be able to enforce the terms of the contract automatically. Block chain encryption technology realizes the unique management of the ownership of trade documents and enhances the reliability of trade.

2.4 Solving efficiency problems

Block chains can be combined with the Internet of things to improve the efficiency of global trade. For example, vehicles and vehicles can communicate in real time through the Internet of things to improve fuel efficiency and transport safety throughout the transport chain.

3. Application of block chain in the field of finance

The application of block chain technology in the field of finance is discussed in this paper.

3.1 Intelligent contract

Although the traditional paper contract has the legal efficiency, but the contract realization process does not have the very good safeguard. In case of breach of contract, both the plaintiff and the defendant need to invest a lot of cost to defend their rights. The emergence of electronic contracts solves the problems of traditional paper contracts to some extent, but there are also many problems. For example, electronic contracts are centralized, and contract makers can tamper with them. For example, the vast majority of electronic contracts only support the basic business. With block-chain technology, banks can record contracts on the network. The characteristics of decentralization of block chain and non-tampering can effectively guarantee the contract, integrity, accuracy and protection of the rights and interests of both parties to the contract.

3.2 Supply chain information review

In financial markets, banks typically provide factoring for core firms and primary suppliers for wind-control reasons. This makes a lot of secondary, tertiary suppliers can not get financing in the bank. This is because the financial information of core enterprises and primary suppliers is open and transparent, and the banks do not have great financial risk to provide factoring business to them. And level 2, level 3 supplier is very covert. Banks are worried about the financial risks posed by factoring them. Depending on block chain technology, banks can see on the web the record of goods movement and the details of the goods of each participant in the supply chain information. Because the information on the block chain can not be tampered with, the bank can grasp the very real data of the participants. The real data provide the basis for the bank's financial services.

3.3 Cross-border payment

At present, many countries mainly use SWIFT settlement system for cross-border payment, and the settlement cycle is very long. In addition, cross-border payment requires sponsors to pay high fees, and the operation process is very cumbersome. Depending on the block chain technology, the information of each block can not be tampered with, which ensures the accuracy and security of the information. In the network, all the participating nodes verify and maintain the information together to ensure the consistency of the information. In the payment platform based on block chain technology, banks in different countries do not need to carry out complex information synchronization and reconciliation when processing cross-border payment, so the settlement time is greatly shortened and the cost is greatly reduced. With this. At the same time, banks in different countries do not need to set up reserves to be stored in the intermediate associated banks, but can directly settle the accounts in real time. This has greatly reduced the financial burden on banks.

With the development of block chain technology, block chain has changed the traditional banking organization structure and service mode. For the financial sector as a whole, blockchain technology can effectively promote the establishment of an

open and credible shared financial system.

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