

研究报告

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Research report

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TSINGHUA UNIVERSITY NATIONAL INSTITUTE OF FINANCIAL RESEARCH

An Introduction of Blockchain: The Technical Principles, Applications and Regulation

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Abstract:

With the rise of digital currency, the underlying technology--blockchain has long attracted the interest of general public, investment community as well as regulation authorities. We first introduce the characteristics and development potentials of this brand new technology. We discuss many real applications based on block chain technology, especially in China. Finally, we discuss several countries' regulation and guidance on the development of block chain technology. In conclusion, the block chain technology could be the building blocks for next generation technology innovations, and it has great potentials in different areas and industries. However, we need to be aware that the infrastructure based on block chain could take a long time to realize, due to technical difficulty, fund shortage and compliance risk.

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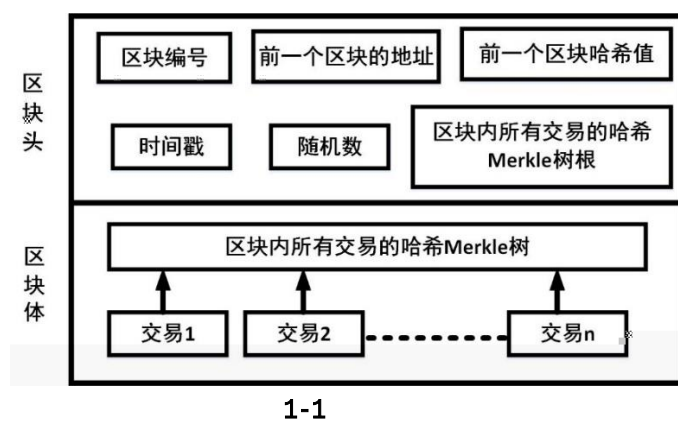
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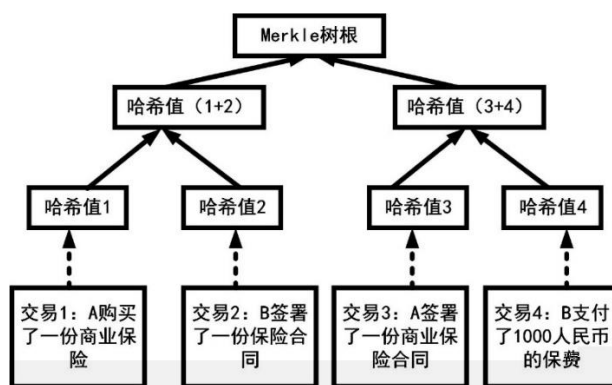
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Satoshi Nakamoto. Bitcoin: A Peer-to-Peer Electronic Cash System. 2008.

Marco Iansiti, Karim R. Lakhani. The Truth about Blockchain. *Harvard Business Review*. 2016.

PWC. Redrawing the Lines: FinTech's Growing Influences on Financial Service. Research Report. 2017.

World Economic Forum, The Future of Financial Infrastructure: An Ambitious Look of at How Blockchain Can Reshape Financial Services. Research Report. 2016.

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