

**A STUDY ON EVOLUTION OF MONEY FROM ANCIENT
COMMODITY MONEY TO DIGITAL CURRENCY AND THEORIES
REGARDING ORIGIN OF MONEY**

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ABSTRACT

By exploring the history of money, this paper describes the transition from former commodity money to today's electronic money. After introducing three major theories regarding the origin of money the development of payment system is outlined. It includes the overall change of payment system from commodity money to cryptocurrencies. In this study we include vast information about the theories regarding origin of money, stages of evolution of money, some cryptocurrencies include our findings about the future of money. Additionally, it is indicated why innovations of current payment technologies are tremendously important with respect to economic aspects such as electronic commerce.

Key Words: E-money, money, payment system, E-commerce

1. INTRODUCTION

Money's come a long way, from gold coins to numbers on a computer screen. In our world today, money is high tachypnoea not only use coins and dollar bills issued by the government as money, but also increasingly cheques and credit cards. Banks are able to move millions of dollars by touching only one button on their computers.

Money has always been important to people and to the economy. Many economists, like John Kenneth Galbreath (*"Money: Whence it came, where it went"*, pp.15,29,1975), have dealt with the question of money already. The forms have taken on over centuries have always been closely connected with the technological developments in the economy. As simple economies evolved into more complicated

economies, money has always adapted to the different economic circumstances. With respect to the latest innovations in the computer industry a new form of money has evolved: e money.

This paper describes the transition from traditional commodity money to the cryptocurrencies. It examines the current innovations in the payment technologies by exploring how today's form of money have evolved over time. In this paper we describe the main theories regarding the origin of money and the transition of money from initial stage to present stage.

2.OBJECTIVES OF STUDY

- To evaluate the three major theories regarding the origin of money.
- To evaluate the overall change of payment system from initial stage to present stage.
- To describe some crypto currencies.
- To indicate why innovation of current payment technologies are tremendously important with respect to economic aspects such as e commerce.

3.RESEARCH METHODOLOGY

➤ Research design

Research design used for this study is descriptive.

➤ Secondary data

Secondary data are collected from textbook, journals, websites and also refer previous research studies.

4. THEORIES REGARDING ORIGIN OF MONEY

1. MONEY WAS CREATED FOR TRADING PURPOSES

Most economists assume that money developed for trading purposes, because it was more flexible than bartering. This meant that money was a valuable commodity itself, such as cattle in ancient civilizations, later gold and silver by weight and finally coinage –gold and silver coins.

This all seems reasonable enough until you realize that it is an attempt to justify the origin of metallic money, otherwise where do cattle fit into this metallic idea? They don't. Furthermore, metallic money would assume a high level of development: it would assume recognition of private property as opposed to tribal property: it would assume recognition of contracts and a legal system to enforce them. Whereas cattle as money is much easier to accept, because it is easy to value for a primitive society, with no legal system to arbitrarily enforce a value.

2. MONEY WAS CREATED FOR SOCIAL PURPOSES

The second theory is that money was created for social purposes, such as establishing the price of a bride or as blood-money for somebody killed or injured by another tribe.

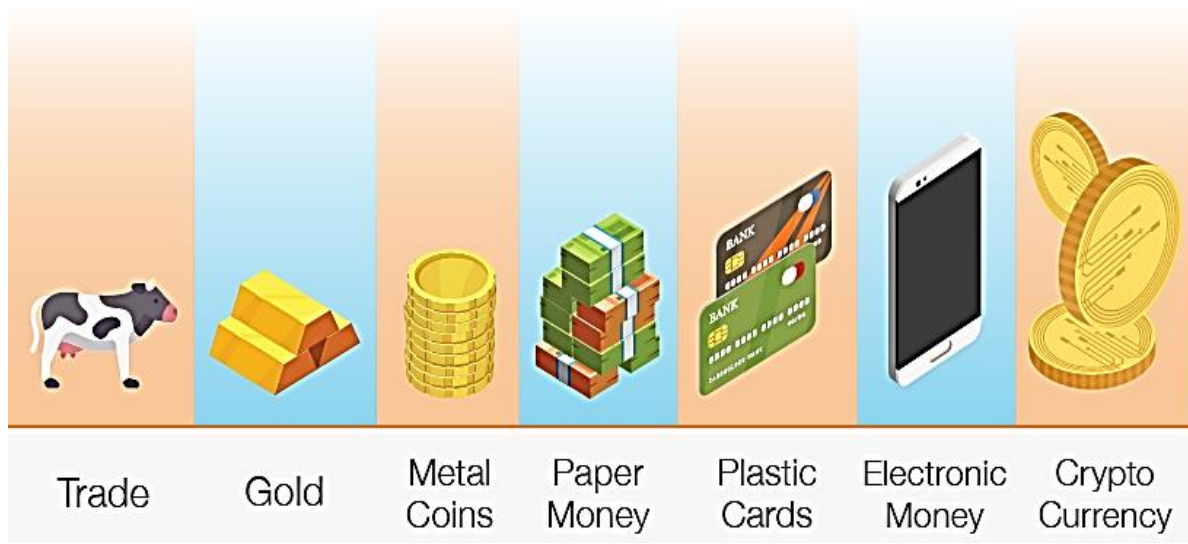
3. MONEY WAS CREATED FOR RELIGIOUS PURPOSES

The third theory is that money was developed for religious purposes. Bernard Laum in his book *Heiliges Geld (Holy Money)* states that money's origin was in the Eastern temples as the prescribed sacrifice to the gods and payment to the priests.

Gold would have been the easiest metal for ancient man to mine from rocks in river beds, with copper the next easiest and silver requiring the most developed technology to mine. This goes against all our instinctive ideas that gold is valuable because it is so difficult to obtain. Rather gold became valuable precisely because it was relatively easy to obtain, and looked nice. Gold and silver were presented to the temples in the East as dues to the priests and offerings for the gods, as well as other commodities such as barley and wheat. Over time the temples would have acquired a large proportion of the existing gold and silver. This theory is supported by the vast amounts of gold and silver seized by Alexander the Great from Eastern temples in 330 BC.

5. EVOLUTION OF PAYMENT SYSTEM

The Evolution of Money



1, BARTER SYSTEM

A barter system is an old method of exchange. This system has been used for centuries and long before money was invented. People exchanged services and goods for other services and goods in return. Today, bartering has made a comeback using techniques that are more sophisticated to aid in trading; for instance, the Internet. In ancient times, this system involved people in the same area, however today bartering is global. The value of bartering items can be negotiated with the other party. Bartering doesn't involve money which is one of the advantages. You can buy items by exchanging an item you have but no longer want or need. Generally, trading in this manner is done through Online auctions and swap markets.

The history of bartering dates all the way back to 6000 BC. Introduced by Mesopotamia tribes, bartering was adopted by Phoenicians. Phoenicians bartered goods to those located in various other cities across oceans. Babylonians also developed an improved bartering system. Goods were exchanged for food, tea, weapons, and spices. At times, human skulls were used as well. Salt was another popular item exchanged. Salt was so valuable that Roman soldiers' salaries were paid with it. In the Middle Ages, Europeans traveled around the globe to barter crafts and furs in exchange for silks and perfumes. Colonial Americans exchanged musket balls, deer skins, and wheat. When money was invented, bartering did not end, it became more organized.

Due to lack of money, bartering became popular in the 1930s during the Great Depression. It was used to obtain food and various other services. It was done through groups or between people who acted similar to banks. If any items were sold, the owner would receive credit and the buyer's account would be debited.

2.GOLD

Gold has always played an important role in the international monetary system. Gold coins were first struck on the order of King Croesus of Lydia (an area that is now part of Turkey), around 550 BC. They circulated as currency in many countries before the introduction of paper money.

3.METAL COINS

Minting of gold and silver coins was common for many centuries, and pieces were guaranteed by their intrinsic value, that is to say, by the trade value of the metal used in their production. Then, a coin made with twenty grams of gold was exchanged for goods of even value.

4.PAPER MONEY

It was found inconvenient as well as dangerous to carry gold and silver coins from place to place. So, invention of paper money marked a very important stage in the development of money. Paper money is regulated and controlled by Central bank of the country (RBI in India). At present, a very large part of money consists mainly of currency notes or paper money issued by the central bank.

5.PLASTIC CARDS

The evolution of plastic money dates back to the 1920s, when the first payment card was introduced in the USA. Diners Club and American Express launched the world's first plastic card in the USA, in 1950. The first credit card was introduced by Diners Club in 1951.

6, ELECTRONIC MONEY

Electronic money or e-money has been subject to regulation in the EU since April 2002 when the first Electronic Money Directive 2000/46/EC (“EMD1”) established the regulatory framework. However, there have been difficulties ever since in interpreting and applying in practice the definition of e-money.

7. CRYPTOCURRENCY

A cryptocurrency, crypto-currency, or crypto is a digital asset designed to work as a medium of exchange wherein individual coin ownership records are stored in a ledger existing in a form of a computerized database using strong cryptography to secure transaction records, to control the creation of additional coins, and to verify the transfer of coin ownership.[1][2] It typically does not exist in physical form (like paper money) and is typically not issued by a central authority. Cryptocurrencies typically use decentralized control as opposed to centralized digital currency and central banking systems.[3] When a cryptocurrency is minted or created prior to issuance or issued by a single issuer, it is generally considered centralized. When implemented with decentralized control, each cryptocurrency works through distributed ledger technology, typically a blockchain, that serves as a public financial transaction database.[4]

Bitcoin, first released as open-source software in 2009, is the first decentralized cryptocurrency.[5] Since the release of bitcoin, other cryptocurrencies have been created.

6. SOME CRYPTOCURRENCIES

1. BITCOIN



Bitcoin is a decentralized digital currency, without a central bank or single administrator, that can be sent from user to user on the peer-to-peer bitcoin network without the need for intermediaries. Transactions are verified by network nodes through cryptography and recorded in a public distributed ledger called a blockchain. The cryptocurrency is invented in 2008 by an unknown person or group of people using the name Satoshi Nakamoto. The currency began to use in 2009 when its implementation was released as open-source software.

Bitcoins are created as a reward for a process known as mining. They can be exchanged for other currencies, products, and services, but the real-world value of the coins is extremely volatile. Research produced by the University of Cambridge estimated that in 2017, there were 2.9 to 5.8 million unique users using a cryptocurrency wallet, most of them using bitcoin. Users choose to participate in the digital currency for a number of reasons: ideologies such as commitment to anarchism, decentralization and libertarianism, convenience, using the currency as an investment and pseudonymity of transactions. Increased use has led to a desire among governments for regulation in order to tax, facilitate legal use in trade and for other reasons (such as investigations for money laundering and price manipulation).

2. ETHEREUM



Ethereum is a decentralized, open-source blockchain with smart contract functionality. Ether (ETH) is the native cryptocurrency of the platform. After Bitcoin, it is the second-largest cryptocurrency by market capitalization. Ethereum is the most actively used blockchain.

Ethereum was proposed in 2013 by programmer Vitali Buterin. In 2014, development was crowdfunded, and the network went live with an initial supply of 72 million coins on 30 July 2015. The platform allows developers to build and operate decentralized applications that users can interact with. Decentralized finance (DeFi) applications provide a broad array of financial services without the need for typical financial intermediaries, such as brokerages, exchanges, or banks, allowing cryptocurrency users to borrow against their holdings or lend them out for interest. Ethereum also allows for the creation and exchange of NFTs, which are non-interchangeable tokens connected to digital works of art or other real-world items and sold as unique digital property. Additionally, many other cryptocurrencies operate as ERC-20 tokens on top of the Ethereum blockchain and have utilized the platform for initial coin offerings.

In 2016, a hacker exploited a flaw in a third-party project called The DAO and stole \$50 million of Ether. As a result, the Ethereum community voted to hard fork the blockchain to reverse the theft and Ethereum Classic (ETC) continued as the original chain.

Ethereum has started implementing a series of upgrades called Ethereum 2.0, which includes a transition to proof of stake and aims to increase transaction throughput using shading.

Bitcoin has been criticized for its use in illegal transactions, the large amount of electricity (and thus carbon footprint) used by mining, price volatility, and thefts from exchanges. Some economists and commentators have characterized it as a speculative bubble at various times. Bitcoin has also been used as an investment, although several regulatory agencies have issued investor alerts about bitcoin.

3.TETHER



Tether belongs to a breed of cryptocurrencies called stable coins which aim to keep cryptocurrency valuations stable, as opposed to the wide swings observed in the prices of other popular cryptocurrencies like Bitcoin and Ethereum. That would allow it to be used as a medium of exchange and a mode of storage of value, instead of being used as a medium of speculative investments.

Tether specifically belongs to the category of fiat-collateralized stable coins. This means that a fiat currency like the US dollar, the euro, or the yen, backs each crypto coin in circulation. Other stable coin categories include crypto-collateralized stable coins, which use cryptocurrency reserves as collateral, or non-collateralized stable coins. Non-collateralized stable coins don't have any collateral but operate in a way similar to that of a reserve bank to maintain the necessary supply of tokens, depending on the economic situation.

Tether was specifically designed to build the necessary bridge between fiat currencies and cryptocurrencies and offer stability, transparency, and minimal transaction charges to users. It is pegged against the U.S. dollar and maintains a 1-to-1 ratio with the U.S. dollar in terms of value. However, there is no guarantee provided by Tether Ltd. for any right of redemption or exchange of Tethers for real money – that is, Tethers cannot be exchanged for U.S. dollars.³

According to a study by Crypto Compare, a global cryptocurrency market data provider, bitcoin to Tether trading still represents the majority of BTC traded into fiat or stable coin. In February 2021, 57% of all bitcoin trading was done in USDT.⁴ Tether remains a major source of liquidity for the cryptocurrency market.

Tether was launched as Real Coin in July 2014 and was rebranded as Tether in November by Tether Ltd., the company that is responsible for maintaining the reserve amounts of fiat currency.³

It started trading in February 2015.

7. E-PAYMENT AND E-COMMERCE

An e-commerce payment system (or an electronic payment system) facilitates the acceptance of electronic payment for online transactions. Also known as a subcomponent of electronic data interchange (EDI), e-commerce payment systems have become increasingly popular due to the widespread use of the internet-based shopping and banking.

Credit cards remain the most common forms of payment for e-commerce transactions. As of 2008, in North America almost 90% of online retail transactions were made with this payment type. It is difficult for an online retailer to operate without supporting credit and debit cards due to their widespread use. Online merchants must comply with stringent rules stipulated by the credit and debit card issuers (e.g., Visa and Mastercard) in accordance with

bank and financial regulation in the countries where the debit/credit service conducts business.

For the vast majority of payment systems accessible on the public Internet, baseline authentication (of the financial institution on the receiving end), data integrity, and confidentiality of the electronic information exchanged over the public network involves obtaining a certificate from an authorized certificate authority (CA) who provides public-key infrastructure (PKI). Even with transport layer security (TLS) in place to safeguard the portion of the transaction conducted over public networks—especially with payment systems—the customer-facing website itself must be coded with great care, so as not to leak credentials and expose customers to subsequent identity theft.

Despite widespread use in North America, there are still many countries such as China and India that have some problems to overcome in regard to credit card security. Increased security measures include use of the card verification number (CVN) which detects fraud by comparing the verification number printed on the signature strip on the back of the card with the information on file with the cardholder's issuing bank.

There are companies that specialize in financial transaction over the Internet, such as Stripe for credit cards processing, Smart pay for direct online bank payments and PayPal for alternative payment methods at checkout. Many of the me diaries permit consumers to establish an account quickly, and to transfer funds between their on-line accounts and traditional bank accounts, typically via automated clearing house (ACH) transactions.

The speed and simplicity with which cyber-me diary accounts can be established and used have contributed to their widespread use, despite the risk of theft, abuse, and the typically arduous process of seeking recourse when things go wrong. The inherent information asymmetry of large financial institutions maintaining information safeguards provides the end-user with little insight into the system when the system mishandles funds, leaving disgruntled users frequently accusing the me diaries of sloppy or wrongful behavior; trust between the public and the banking corporations is not improved when large financial institutions are revealed to have taken flagrant advantage of their asymmetric power, such as the 2016 Wells Fargo account fraud scandal.

8. FINDINGS

Through the study we find the chances of evolution of money in future. The future of cash has become an ongoing debate, but mostly among economists. ultimately, cash may in fact disappear. But it's mostly a question of where and when. While it may disappear in some countries, it might remain in others. And if it ultimately happens in 50 or 100 or more years, it won't matter much to anyone who's alive today. For the average person, it's a moot point—since we have access to a variety of forms of payment, there's no conflict. Any discussion of the topic is really speculation. Cash has been in circulation for several human lifetimes.

9. CONCLUSION

To sum up, money has taken different forms over time. As discussed in the paper, today's money has evolved over centuries. Due to many innovations and technological advances in the computer industry, money has become finally what it is today: high-tech. It acts like a symbol of the commercial structure we operate in. By examining the history of money, it becomes obvious that a higher number of societies with sophisticated economies has resulted in money adapting to the technological advances in the economies. The more sophisticated the society the more the use of traditional money has declined. All the transition steps from a barter economy to today's high-tech world have always been followed by the evolutionary steps of money. From commodity money over fiat money, it has evolved into digitized money. Digital money makes it possible to undertake cash transactions over the internet. "By doing so, it will be the basis for a new generation of digitized business." (Besson, 1999, p.79) It can be safely assumed that e-money will diminish the use of government issued money.

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