

# What is virtual currency 4 term paper

[Economics](#), [Currency](#)



## **Virtual Currency**

Introduction3

Types Of Virtual Currency4

Evolution of Virtual Currency6

Crypto-Currency7

BitCoin7

Virtual Currency Ecosystem11

Virtual Currency Exchange11

Administrator11

User11

Miner12

Virtual currency wallet12

Benefits of Virtual Currency13

Global cash transfer13

Cost Saving14

Universal Currency14

Conclusions14

## **Bibliography16**

Introduction

Virtual and digital currency are often confused and used interchangeably, when in reality virtual currency is a specialized kind of digital currency but not all forms of digital currency are virtual. Digital currencies are represented and stored in digital format, however these numbers correspond

<https://assignbuster.com/what-is-virtual-currency-4-term-paper/>

to physical currency stored somewhere else. On the contrary, virtual currency has gained even more attention due to its flexibility of usage and trade. While the internet based currency or the virtual currency is referred as the future of payment method there are several risks associated with it too. This paper will discuss the definition, types and uses of different virtual currencies and the potential risks associated with them. The paper will also briefly discuss the future propositions for virtual currency market.

### What Is Virtual Currency?

Virtual currency is digital depiction of a definite value of money that can be easily traded and exchanged over digital (such as Internet) medium. Though the value of virtual currency is legal and valid entity however it does not have a physical presence.

It is different from real currency or fiat currency as it can only be traded in the virtual digital environment. Virtual currency is also distinct from e-money which is primarily only a representation of real currency in digital environment. Digital currency can therefore represent real or virtual currency and that's why it is often confusingly used interchangeably.

### Types Of Virtual Currency

There are two broad categories of virtual currency based on their operational and exchange mechanisms termed as convertible and non-convertible. The term convertible does not refer to the way gold can be converted in fact the term refers to how it can be used like fiat money in digital environment.

Convertible virtual currency is also referred as “open-flow” as it has a definite value like in real currency and can be traded back and forth just like the real world trading. These can also be used to purchase real products and

services through web. The examples include

Bitcoin, e-Gold (defunct), Liberty Reserve (defunct), Second Life Linden Dollars and WebMoney. 10

Non-Convertible money is also termed “ closed flow” as it has limited functionality as compared to real money. This type of virtual money is intended for a special purpose only usually for interactive games: Massively Multiplayer Online Role-Playing Game (MMORPG) or for specifically buying at a particular e-store such as Amazon coins for amazon. com. This type of virtual currency has distinct rules that are governed by that special environment only and cannot be traded for fiat money. Project Entropia Dollars, Q Coins and World of Warcraft Gold are some of the examples. These can only be used to purchase virtual goods and services usually in a virtual environment.

Hybrid Flow was developed as a bridge between open and closed flow currency. The users are allowed to buy virtual currency with real money or earn virtual money by performing some tasks and then use that virtual currency to buy real as well as virtual goods and services. This type of currency is also traded under special rules set up by the issuer authority. Amazon Coins and games like World Of Warcraft provides a hybrid flow of virtual currency and allows the gamers to trade virtual goods with real money within the MMORPG environment of the game.

#### Evolution of Virtual Currency

The current state of virtual currency market has been working on the perfect mechanism for virtual trading and exchange, though several previous efforts failed miserably due to various reasons the current wave of new

development seem to stay longer.

The early developments in the market include Flooz, eGold and Liberty Reserve. Each of these were centrally controlled or administrated by one leading authority. E-Gold was founded in 1996 and was backed up by real gold for the valuation. Liberty Reserves came around 2006 and facilitate the users to convert dollars into euros and used them easily at a mere fee of \$1. However, both of these services were shut down shortly by US Government for allegedly used by criminal organizations for money laundering. In 2013, US government charged Liberty Reserve dollars of involvement in credit card frauds, identity thefts and drug trafficking by distribution and laundering approximately US\$6 billion worth of proceeds.

One thing common among all the previous virtual currency products was the centralized control. Whether in a virtual MMORPG environment or E-Gold or Liberty Reserves, every venture was controlled by a single authority which was capable of managing and changing the rules on how the currency is used. The MMORPG environments even hired economists to control over the use of the virtual currency, with full control on the supply of money and the virtual economic system of the gamers.

These central authorities also control how much interaction the virtual currency can have with the real currency. Most of the games have strict and clear rules for their currency with limited interaction with real world currency mainly to avoid taxation and any other regulations that are applied to fiat currency. These authorities clearly mention that their currency has no real value and cannot be traded with real money. On the contrary, there are some virtual environments that allow open exchange of virtual currency with

real money however they still control the supply of the virtual currency to maintain the virtual economy of the environment.

### Crypto-Currency

While all non-convertible virtual currency are centralized, convertible or hybrid currency can be centralized or decentralized. More commonly identified as Bitcoin, Litecoin or Ripple are examples of crypto-currency that are distributed, math based peer to peer and open source with no central authority to control or monitor.

As the name suggests, crypto-currency are based on cryptography to securely trade virtual currency between people on Internet. It has a private and a public key and relies on secure digital signatures for verification and authentication while exchanging the money online, thus making it more reliable than other counterparts. Several independent parties are involved in the entire transaction of crypto-currency to maintain the security, integrity and ledger. Various cryptography specification have been developed mainly from Bitcoin that uses the proof-of-the-work system for validation of the transactions, however there have been serious research and development to develop an alternate system of transactions validation.

### BitCoin

Bitcoin was launched in 2009 and have received much attention since then as being the first decentralized virtual currency that can be exchanged with real money and usable on internet to buy real goods and services with complete security and validation. The Bitcoin ecosystem involves merchants, miner, users and investors.

Bitcoin can be exchanged with real currency and can even be converted into

different fiat currency such as dollars, euros etc. Users can receive, store, send and monitor their bitcoin transaction through an open source software.

Figure 2: BitCoin features, [http://www. online-accounting-degrees.](http://www.online-accounting-degrees.net/bitcoin/)

[net/bitcoin/](http://www.online-accounting-degrees.net/bitcoin/)

The most promising feature of bitcoin is their anonymity with the user and the security procedures throughout the transaction. The users can get bitcoin address that is an equivalent to an account and is used at Bitcoin exchange and is used to distinguish the bitcoin transaction. These addresses are not relatable to the user in anyway and cannot be traced back to the user thus providing complete security and anonymity to the user. Bitcoin Miners are the people or company that can issue and manage the supply of bitcoin. Since the bitcoin are mined mathematically the supply is always in relation to the market demand. The decentralization of bitcoin makes it more comfortable for the user to be sure that the market rules will not change instantly.

Figure 3: Bitcoin Safety, [http://www. online-accounting-degrees. net/bitcoin/](http://www.online-accounting-degrees.net/bitcoin/)

The safety and privacy specification has helped this virtual currency in being traded just like a commodity globally and used over the Internet. Though there are some specific bitcoin merchants online which facilitate buying with bitcoin however the popularity and flexibility of Bitcoin has attracted several new merchants to accept Bitcoin. The rate of acceptance for Bitcoin among the users rose exponentially showing that the market was ready for this kind of virtual currency.

The graph below shows that since 2009 there have been 3.3 million downloads of the bitcoin software and as reported by Bitcoin peer-to-peer

<https://assignbuster.com/what-is-virtual-currency-4-term-paper/>

network , over 11 million bitcoin have been mined since its introduction until 2013.

The exchange rates of Bitcoin against US dollar have not been steady, the exchange rate initially ranged from \$5 to \$20 per bitcoin, but increased up to \$79 and even over \$237 after April 2013. By Mid-2014, the reported number of bitcoin rose to 12 and half million with their total exchange value about US \$ 5. 5 billion.

The attention bitcoin has attracted has encouraged more than 900 online/offline merchants to accept bitcoin payments with 75 authorized bitcoin exchanges working actively.

Figure 4 Bitcoin Acceptance,

The decentralized and mathematically mined Bitcoin opened doors to further development in virtual currency industry. Other such currencies are referred to as AltCoin including Ripple, PeerCoin, Lite-coin, zerocoin, anoncoin and dogecoin

Virtual Currency Ecosystem

The ecosystem of virtual currency has some main players involved in issuing, controlling, processing and monitoring the transactions and valuation of the currency. Following is a brief description of each of these players and authorities.

Virtual Currency Exchange

Virtual Exchange is the authority that engages in the exchange and trading of virtual currency with real currency, funds or another virtual currency depending upon the type of currency for a transactional fee. The exchangers can affiliated, independent or third party service providers depending upon



the requirements of the currency issuer.

#### Administrator

The administrator is the central entity that issues a specific virtual currency and regulates the currency as well as the particular virtual economies with full control on the maintaining a central ledger and the authority to redeem the currency from further circulation. These central authorities can control the valuation rates of the virtual currency within that environment and have ability to dictate how the users in that environment spend their money for example by changing rules of game or offering high priced items with loyalty points or discounts.

#### User

The user is at the center of the virtual currency ecosystem as he uses the currency to buy real or virtual goods, services or exchanges the currency with real money. Users may also buy the virtual currency as a form of investment in real world as well as in MMORPG environments. Users can acquire the currency by buying it against real money from exchange, or in case of centralized currency from the issuer. In virtual environment user might also earn the currency by engaging into certain activities such as reaching a target in a game, gain loyalty points or responding to a promotional campaign or for decentralized currency such as bitcoin by mining them.

#### Miner

A miner is an important participant in a decentralized virtual currency network who operate special software to execute complex mathematical algorithms to validate transactions in a distributed proof-of-work

environment. A miner can be a user or an exchange too, the role of miner will enable them to generate convertible virtual currency for personal use and exchange/trade it with other users for fiat or virtual currency.

#### Virtual currency wallet

As the name suggests, the virtual wallet is usually a software application or a service from a web portal that can facilitate the user to store the virtual currency. Some of the virtual wallets might also provide some value added services to the user such encryption and multiple key signatures for verification and authorization, online and offline storage and backup facility to keep the account information safe and handy. All wallets can communicate with other wallets for transferring required information.

The wallet service provider offers transferring or sending virtual currency too. The wallet has security and privacy protocols, for example in case of Bitcoin the wallet has the private keys of the user to verify the user transactions. The wallet also facilitates the users, merchants and exchangers to process their transactions safely as it manages the virtual account for the user and provides complete security.

The above mentioned participants only cover the basic ecosystem and with the rapid development in the industry more or less participants can appear.

#### Benefits of Virtual Currency

Even with all the rumors that have surrounded virtual currency for the past decade, the market of virtual currency is evolving. The US department of justice has also recognized the fact that though the market is still nascent, but virtual currency and transactions can be the stepping stone to a revolutionized money market. TO realize greater benefits from the virtual

currency it is important to identify and rectify the potential risks associated with it. Some of the benefits could be as follows:

#### Global cash transfer

The target users of virtual currency are distributed across the globe and need transaction services almost anywhere. These users are merchants and travelers and need cash transfers instantly regardless of the location of any party. The rise of attention among common users for virtual currency especially Bitcoin was the instantaneous money transfers that involve no other costs or fee, makes it perfect for micro-transactions.

#### Cost Saving

Since the basic model of virtual currency involves least a participants and limits the role of payment gateways and banks, the model can be useful for economy as the transfer will involve less stakeholders. Experts believe that with the advent of crypto currency and the anonymity it offers, the virtual currency can serve their users as personal Swiss bank accounts as the funds will be outside the reach of anyone else.

#### Universal Currency

The virtual currency can serve as the universal currency for people across the globe and countries can have a more stable money market with a standard currency that is the virtual currency.

As with any other technology there are pros and cons for virtual currency too. Mainly due to its instable architecture and lack of vigilance, it is prone to criminal activities. The anonymity without stricter security has given criminal groups an ease of funds transfer without being traceable. The regulations and the issuer need to be sterner as to carryout prior screening to limit such

activists.

## Conclusions

Virtual currency is an evolving concept and still in its infancy. The original concept came from the massive multi player gamers that let the gamers earn virtual money and buy virtual goods/services though that currency was not exchangeable to real money but portrayed a complete virtual economic system. The new breed of virtual currency has the same worth as the real money in real world and can be used interchangeably with the fiat money. The market is still in development and the regulations are still being developed but the users have shown a positive trend towards the adoption of virtual currency. The rise in the interest has been the main driving force that hassled several online merchants now accept and promote virtual currency. The industry has still a long way to go but the concept is promising and the economists believe that if right steps are taken virtual currency will be the backbone of virtual economy that will be acceptable globally. Virtual currency has the ability to be the common payment model for micro transactions and other business to consumer transactions over the internet replacing the real money.

## Works Cited

Dumon, Marv. " Bitcoin: 3 advantages of the virtual currency." Examiner (2013). <http://www.examiner.com/article/bitcoin-3-advantages-of-the-virtual-currency>.

FINANCIAL ACTION TASK FORCE(FATF). Virtual Currencies. Paris: FINANCIAL ACTION TASK FORCE(FATF), 2014.

GAO. " VIRTUAL Economies And Currencies." 2013, <http://www.gao>.

<https://assignbuster.com/what-is-virtual-currency-4-term-paper/>

gov/assets/660/654620. pdf

SecondMarket Holding Inc. " Infographic: The Bitcoin Ecosystem." 2013.

[http://blog.secondmarket.com/post/54441341974/infographic-the-bitcoin-ecosystem.](http://blog.secondmarket.com/post/54441341974/infographic-the-bitcoin-ecosystem)

WAGNER, ANDREW. " Digital vs. Virtual Currencies." Bitcoin Magazine - Issue 22 (2014).