

# THE E-YUAN

A LIFETIME OPPORTUNITY  
AND A DANGER TO FREEDOM

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## INTRODUCTION

China has been against cryptocurrencies long before they were popular. In 2013 they banned Bitcoin. In 2014 they shut down access to exchanges. In 2017 they banned initial coin offerings.<sup>1</sup> Thus, since 2017 China has outlawed buying, selling, or exchanging cryptocurrencies in any way.

Now, in 2021, they have released a trial run of the e-Yuan (sometimes called the Virtual Yuan), their own cryptocurrency. 100,000 citizens received 200 of the coins which at the time was roughly 31 USD.

The users applied for the program and were selected via lottery. Those who won had to spend the money using the e-Yuan app at selected stores before January 17<sup>th</sup>. Giving us the first glimpse into the potential dangers. The government deciding where the money can be spent, and that the money can expire. This is a level of control unparalleled in history.

The e-Yuan is often advertised as the first government backed cryptocurrency. This is, however, not exactly true. It is not the first to

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<sup>1</sup> Initial coin offering is to cryptocurrency as an initial public offering is to a stock.

be produced by the government. And while it is technically a cryptocurrency as it is digital currency secured by cryptography, we will see it is unlike anything of what one normally thinks of when someone says cryptocurrency.

## The Failures of Other Countries

Other countries, such as Ecuador, have tried and failed to implement central bank digital currencies (CBDCs). Let us look at a couple examples.

### ICELAND

Iceland stood behind the Auroracoin in 2014. The need for this coin came from the failing of their national currency, the Icelandic Krona (currently valued at 0.0079USD).<sup>[7]</sup>



Source: [7]

The Auroracoin reached an all-time high of \$97.84 on March 04, 2014. From there, it was basically a free fall. It reached its lowest point of \$0.005645 on October 06, 2019. Since then, it has had a small improvement (but horrible when compared to other coins) and today it had a low and high of \$0.2417 and \$1.15. This massive range is likely due to the extremely

small trade volume. The grey bars below the graph show the trading volume.



Source: [7]

There are days with no volume.

Thus, overall, we see the Auroracoin took a steep dive losing its value and essentially never recovering. From the daily volume, we can see it is not a highly used coin.

## ISRAEL

The Isracoin looked promising for a while when it had the 4th largest market cap of all coins.<sup>[3]</sup>

However, the official website [www.isracoin.org](http://www.isracoin.org) is no longer operational and cryptocurrency tracking sites such as [coinmarketcap.com](http://coinmarketcap.com) no longer have any information about the coin. It too, went the way of the Dodo bird.

## OTHER GOVERNMENTS

Other governments and banks are quickly trying to implement their own coin.

The Bank for International Settlements surveyed more than 60 central banks in 2020

and found that more than half were conducting studies and experiments on digital currencies.<sup>[1]</sup>

## IS FAILURE POSSIBLE FOR A BIG PLAYER LIKE CHINA?

Given that the Chinese Communist Party is currently in charge, we believe it is a safe assumption that the government can force this cryptocurrency to succeed to some degree.

For example, merchants in China have the freedom to decline payment from other sources such as WeChat Pay. However, they must accept the digital transaction of the state currency, the renminbi (often called the yuan as yuan is the base unit).<sup>[1]</sup>

Since China already enforces merchants to accept digital payments of their fiat currency, we do not believe it is a large leap to assume they will force merchants to accept the e-Yuan.

Furthermore, we have it on record from the People's Bank of China (PBOC) that they will “vigorously promote the exploration and use of non-credit data to develop small and micro-enterprises and ‘agriculture, rural areas and farmers’ credit information services to increase the effective supply of credit information.”<sup>[17] 2</sup>

The PBOC in the same conference has also mentioned that they would want to let everyone in but for no one to leave.

“It is necessary to prevent risks on the basis of stable growth, insist on ‘open the front door and block the

<sup>2</sup> Translated from Chinese using Google Translate.

back door', and encourage small and distinctive financial institutions to conduct business in accordance with laws and regulations while maintaining a high-pressure situation and a severe crackdown."<sup>3</sup>

## THE POSITIVE ASPECTS

The e-Yuan does have many positive aspects. For starters, it is one of the only cryptocurrencies approved by a large government.

At this stage, anyone who buys in is an early adopter and could see huge price increases. This is assuming China plays nice and does not force you to use it before a certain time. We believe China will be kind with the early adapters due to their goals we discuss later, and these goals cannot happen if everyone is too weary of the e-Yuan.

China is already a largely cash-less society, which could potentially make the transition easier. However, it will have to compete against Alipay and WeChat Pay which are already well established.

However, this is not potentially a problem as one of the benefits of being approved and backed by the government is the use of Xinhua, China's official state-run news agency. The government is already boasting that it is "more convenient".<sup>[1]</sup> On Xinhua, President Xi Jinping is quoted to say that blockchain serves "an important role in the next round of

technological innovation and industrial transformation."<sup>[15]</sup>

Another positive aspect is it will greatly reduce counterfeit currency. And if paper currency is phased out, it could eliminate it. In a People's Bank of China 2019 conference, it was said "The new version of renminbi was successfully issued, and new results were achieved in rectifying the rejection of cash and cracking down on counterfeit currency crimes."<sup>[17]</sup><sup>3</sup>

## WHY DOES CHINA WANT IT?

### Freedom from SWIFT

One of the large factors is with their own cryptocurrency, the Chinese government, their people, and anyone they wish to do business with, can exchange money across borders without going through SWIFT (Society for Worldwide Interbank Financial Telecommunication).

Worldwide, about 50% of high value across border transactions went through SWIFT.<sup>[13]</sup>

This is a concern to China largely due to United States interference. The US has enough influence over SWIFT to be able to seize assets and widely monitor transactions including bank transfers and credit card transactions.

Furthermore, the United States has imposed sanctions against Iran. The U.S. Senate Banking Committee pressured the Belgian network to end any relationship with blacklisted Iranian banks. The Iranian banks being cut off from the

<sup>3</sup> Translated from Chinese via Google Translate

SWIFT system immediately stopped billions of dollars worth of transactions.<sup>[13]</sup>

However, we believe this is a longer-term goal of China's. In January 2021, China formed a joint venture with SWIFT<sup>[1]</sup>. This will help to establish the currency as legitimate and speed up the progress to establish its use. Then, later, once it is well established, they can either cut ties from SWIFT or have enough influence over SWIFT, as the US has today, for it to no longer be an issue.

## Freedom from the US dollar

Furthermore, implementation will help free China from the US dollar.

An ultimate, albeit unlikely, goal is to overcome the United States dollar as the global reserve currency.

“A bigger goal of ours is to challenge the dominance of the US dollar in international trade settlement,” says the director at a large state-owned bank. “But progress towards this will only be gradual.”<sup>[1]</sup>

Is it realistic for China to take over the global reserve currency? One could argue yes, they are second largest economy in the world. On the other hand, the renminbi is used for 4% of international payments while the mighty dollar handles 88%.<sup>[11]</sup>

While this is a large gap, the potential for growth, I believe, is in the time delay. Transactions across borders can currently take a day or two to clear.<sup>[6]</sup> If China's e-Yuan can

eliminate, or greatly reduce, this wait time, it could provide it an edge over the US dollar.

Those wishing to transfer capital more quickly may seek out the e-Yuan. However, this is not a guarantee. The SWIFT system may find a way to more quickly transfer and clear transactions when under pressure from a rising e-Yuan. Or the United States may create their version of the digital dollar to stay on top.

Another potential factor, in favor of the e-Yuan, is the large amount of money creation by the United States Federal Reserve. In 2020 and 2021, there has been almost 6 trillion dollars of Coronavirus relief bills. The national debt has gone from 19.5 trillion in 2016 to over 28 trillion today. This brings about concern for inflation and weakening of the dollar. If enough people, companies, and countries agree, it could cause an exodus to find a more stable and valuable form of currency.

## Bringing Unbanked People into the System

In 2018, 11.4% of adults in China were unbanked. That is, they have no active bank account (active being defined as used in the past 6 months).<sup>[9]</sup>

Having a digital currency would allow China to reach these people more easily. An unbanked person would only need a phone to be part of the system. This reduces the need for infrastructure of banks, ATMs, personal, etc.

This goal was directly mentioned during a conference by The People's Bank of China in 2019. “The new version of renminbi was successfully issued... intensify financial targeted

poverty alleviation and improve basic financial services in poor areas." [17] 4

## Breaking the Legs of Large Corporations

"Those big tech companies bring to us a lot of challenges and financial risks, you see: In this game, winners take all, so monopolies are a challenge." - Yi Gang, People's Bank of China Governor

The two largest apps are Alipay and WeChat backed by Alibaba Group Holding Ltd. and Tencent Holdings Ltd. These companies' apps handle 16% of China's gross domestic product payments.<sup>[6]</sup>

For an idea of the magnitude of how large and popular these services are, Alipay has reportedly handled up to 256,000 payments per second (in 2017)<sup>[2]</sup> while the American company Visa advertises that they can handle more than 65,000 transactions a second (in 2018).<sup>[14][15]</sup>

## Freedom from the Worries of Other Cryptocurrencies

"If Libra is accepted by everyone and becomes a widely used payment tool, then after some time, it is entirely possible that it will develop into a global, super-sovereign currency," Mu Changchun, a top official at PBOC "We need to plan

ahead to protect our monetary sovereignty."<sup>[16]</sup>

This is not just a fear of China. Jerome Powell, the chair of the United States Federal Reserve, has concerns of "money laundering, consumer protection and financial stability" about Facebook's Libra cryptocurrency. Other central bankers from Britain, France, the European Central Bank, and Singapore also voiced concern.<sup>[10]</sup>

By creating their own cryptocurrency and having it established and making all other coins illegal, they can help ensure all transactions stay within their own system.

## 1984

With the cryptocurrency being backed by the Chinese Government, it seems likely there will be a large adoption of the coin. While it is likely it will be voluntary, the reality is it is easy to make it voluntary in name only.

## Economy Surveillance

"It's extraordinary power and visibility into the financial system, more than any central bank has today," said Martin Chorzempa, a research fellow at the Peterson Institute for International Economics.<sup>[16]</sup>

Full implementation of the e-yuan would allow complete access to all financial transactions. On the positive side, this could be used to help detect and stop terrorist. It could stop money-laundering, tax avoidance, and illegal gambling.

<sup>4</sup> Translated from Chinese via Google Translate

However, there is always a fear when giving the government power. Since they themselves have stated that they can use the e-Yuan to stop these bad behaviors, then who is to say they will not redefine what is 'bad'.

Could they close a business' access to the currency? Could they limit what neighborhood you can live in? Perhaps they decide you can no longer buy alcohol. Maybe you are too outspoken against the current political party and find you can no longer function in society.

The People's Bank of China, however, claims otherwise:

“As long as you aren't committing any crimes and you want to make purchases that you don't want others to know about, we still want to protect this kind of privacy,” Mr. Mu, deputy director of the central bank's payments department <sup>[16]</sup>

We will see, however, that what is defined as 'crime' in some parts of China, is starkly different from what we define as crimes.

## Transaction Limits

The People's Bank of China (PBOC) has also implied transaction limits. Unlike other cryptocurrencies like Bitcoin, the government could tell you “Oh, sorry but you can't send that much money to someone.”

The PBOC has even gone to say that large transactions could be possible but would require an appointment to get approval. <sup>[6]</sup>

This is not an irrational science-fiction fear, they are going to limit the transactions in a way that other cryptocurrencies do not have to worry about. One of the dangers of being centralized.

## Expiring Money

The governments of the world have always had a way to steal from the people in a secret taxation: inflation. They can simply print your wealth away.

However, with the e-Yuan, we have something far more extreme: expiring money. You must use it by a certain date, or it is simply gone. The fact that the Chinese government has this power should be greatly concerning for anyone who looks to store any money in this system.

Currently, the expiring money is only stimulus money that the government wants you to spend before a certain time. But this could in theory apply to any of the money as the Chinese government has full control over the code.

Perhaps someone in the government believes that increasing the velocity of the money will help the economy. You log onto your phone one day and you see an alert “500 e-yuan will expire on Friday, please spend it before then”.

Or worse yet, perhaps there is no warning. Perhaps someone believes there is too much inflation, and the money supply needs to be reduced. You log onto your phone and think to yourself “huh, I could have sworn I had more than that yesterday”.

## It is Still a Fiat Currency

We know the Chinese government has the power to create e-Yuan and to have it expire. Unlike other cryptocurrencies like Bitcoin, there is no mention of a limit on the number of e-Yuan. This is a concern because then the government still has the power to devalue your money through inflation.

There is also not any official indication that the currency will be backed by any type of standard, such as gold.

Thus, as with all fiat currencies, the value of the money is reliant upon the faith one has in the producer of the money to be responsible.

## Social Credit Score

The Chinese government has been working on their Social Credit Score system for years now. It is seemingly out of a Black Mirror episode. Using hundreds of thousands of cameras, citizens can be fined for numerous 'bad' behaviors such as jaywalking. Other bad behaviors include making a reservation at a restaurant and not showing, playing loud music, and eating while taking the metro.<sup>[12]</sup>

Regulations are different per city. Shanghai goes so far to say that children must visit their parents and can be blacklisted if they do not. Suzhou worsens your credit if you cheat on a video game.<sup>[12]</sup>

These blacklisted individuals have restrictions on their lives, some cannot, for example, fly on planes or take the metro.<sup>[12]</sup> A bad score can mean you cannot get a mortgage, even if your 'bad' activities are not financial in nature.<sup>[5]</sup>

How does this integrate with the e-Yuan?

Having a fully digital currency integrated with the social credit score system could allow the government, either nationally or locally, to automatically fine individuals for 'bad' behaviors and potentially reward them for 'good' behaviors.

This is clearly a dangerous road to be going down. Who decides what is good and bad? We already know that praising the government can improve your social score.<sup>[12]</sup>

Another example is lawyer Li Xiaolin was blacklisted and unable to buy tickets leaving him 1200 miles from home. His crime? His court apology was believed to be "insincere."<sup>[5]</sup>

What is to stop the current political power, the Chinese Communist Party, from levying fines on individuals who oppose them? These fines would be automatically withdrawn from their accounts. It probably would not be straight forward and labeled "No supporting XYZ" but they could pay extra close attention to people and fine them for any little thing. Or perhaps the money disappears and there is no record that it happened. And as we have seen above, it is arbitrary, and they can change the rules.

## Taxes

With the Chinese government having full control of the currency, you could potentially be taxed by China even if you are not a Chinese citizen. This could be a transfer tax if you leave e-Yuan for another currency or a sales tax.

On top of that, your own country might tax you if the value of the e-Yuan was higher than when you bought it.

## The Slimmer of Hope for Free Trade

However, there is some information that provides some comfort against the 1984-ness.

According to state media, payments are possible with no internet connection.<sup>[1]</sup> This could allow for transactions to occur more off the books. However, this would have to be done with burner phones that remain offline. This is not realistic for the average person.

Furthermore, the Chinese government is in full control of the code behind the e-Yuan. They could, if they wanted to, shut down this feature. Or they could implement required biometrics to use the money, eliminating any anonymity.

## Summary

The e-Yuan has the potential to break the US dollar's stranglehold on the world, allowing China to have control over the reserve currency of the world.

Even if it does not become the reserve currency of the world, adaption in China alone could let early adapters into the market see amazing returns.

As a currency backed by one of the largest governments, this has the potential to become one of the most used currencies and investing in it now could be like getting Bitcoin in the early days.

However, this opportunity for massive growth is not without some very extreme risks by a very controlling government. And if history has taught us anything, those in power cannot help but to

abuse it. One could see their investment fined, disappear without a trace, expire, be inflated away, restricted to only buying certain items at certain places, restricted access based on a social credit score, controlled by transaction limits, double taxed, and any other inflections a central government you have no control over might impose.



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