

# The Emergence Of Cryptocurrency: A Historical Analysis

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# Chapter 1

## Introduction

**The following was inspired in part by personal research and in part by lectures with Professor Vedat Guven.**

Blockchain is a non-centralized transaction and data management solution, it is the technology behind the success of cryptocurrencies such as ethereum and bitcoin. Blockchain technology is getting bigger and bigger because it solves problems in ways that were not previously thought of, its business value is scheduled to hit 176 billion dollars by 2025 and 3.1 trillion dollars by 2030. Blockchain technology has caused a major re-definition of digital trust, which manifests itself in a fully de-centralized way without anyone having to trust any single member of the network.

What this paper attempts to explore is not whether or not the blockchain technology works or not(as this is almost beyond doubt) but to investigate into the foundation and the genesis of the cryptocurrencies that are built upon this blockchain technology. The first generation blockchain(e.g bitcoin) allowed for a very limited capacity to support programmable transactions other than value transfer from one account to another. The second generation(ethereum etc) provides an all-purpose programmable infrastructure with programs known as smart contracts. Smart contracts recently are manifest general purpose computations that take place on a blockchain or distributed ledger, it used to be that they were simply digital equivalents of paper contracts: a deal between two parties with a set of promises that are legally enforceable.

Now that justice has been done to the broad definitions, I invite the reader to join me in exploring the histories of ideas that culminated in this apparently game changing utility tool.

## Chapter 2

# A Glance At The Rear View Mirror

In the sister project of this paper, a python data analysis was made on the opening price of bitcoin on US stock markets from the first of August 2010 to the first of december 2020(See Figure 2.1 below) , we see that the crypto-currency has had it's fair share of ups and downs, but on the whole, the price(s) at the time of closing of the markets has been increasing steadily over time.

It is reasonable to infer that the increase in the value of bitcoin and in crypto-currencies in general is as a result of the dissatisfaction of people with the "old" money system, which then causes a transition(not en masse, but significant) to E-money and/or crypto-currency mediums. Daniel Kahneman in his book , *Thinking, Fast And Slow*, presents the concept of a bias of recency, which is a cognitive bias that causes individuals to more easily remember(and respond to) something that has happened recently, so we can say, with a degree of confidence, that the major driving force behind the transition to crypto-currencies is manifest of and from the emotional(and financial) trauma suffered as result of the most recent major fiscal disaster in history, the 2008 financial crisis. The Crisis of 2008 was caused by the bursting of the United States housing bubble and the subsequent sub-prime mortgage crisis which occurred due to a high default rate and culminating in foreclosures of mortgage loans. This was then followed by the European debt crisis which caused defaults in both Iceland and Greece, the ripple effects had an effect also on African financial markets(although relatively low compared to the european , american and south asian markets) where there were strong

indications of increased asset price and risk premium on the major markets on the continent(Nigeria,Egypt,South Africa) as early as the summer of 2008. It is important for the reader to know that the cause(s) of the 2008 financial crisis are disputed to this day.

The concept of a receny bias provides a damning sentence, because what it suggests is that the crisis was only a drop in an ocean, that it was not just a couple of greedy bankers, it suggestes that the danger, the monster in the closet has been not only ever- present but is embedded into the very foundations of the societal architecture that upholds it. We can now conclude that the present time does not provide enough context, therefore, in rejection of the now, we must take a step back and look at the bigger picture, we must take a glance at the rear view mirror, if you will.

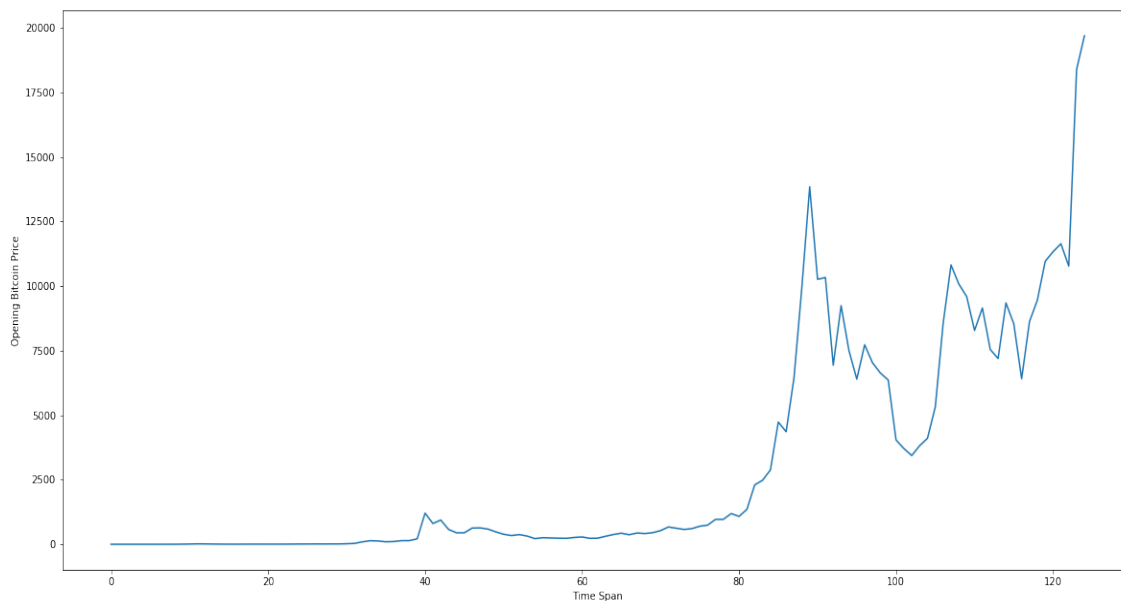


Figure 2.1: Graph From Python Data Analysis Project Showing Bitcoin Opening Prices Over Time.

### 2.0.1 Eureka!....., Or Not

A number of ideas concerning the arrangement of society have been put forth over the centuries, most of them in an attempt by monarchs,priests,aristocrats

and philosophers(the self proclaimed saviours of the people) to salvage the so called poor masses. One the first and primary forms of this salvation viz a viz oppression is the establishment of the theocracy. A theocracy is a a system of government in which priests rule in the name of God or a god , it is through this system of government that a monarch and his priests could introduce a system of serfdom which obliged a peasant to provide forced labor services to his landlord in exchange for being allowed to occupy land, a state close to slavery, indeed the monarchs of year's past were not shy towards engaging in slavery. At this point it is important to ask what is the nature of power? and how is it exercised?.

Power relations are imbedded in the very nexus of society, in every society there is the dominator and there is the dominated which result in a constant state(more or less) of confrontation. A relationship of confrontation will only find equilibrium when stable agencies replace the free play of hostile reactions. The link between domination and struggle is very strong and is perpetual ,at any moment, this relationship can become a confrontation between two enemies and at the time this relationship between enemies may at every moment be responsible for the putting into operation the mechanisms of power. Domination is no doubt a make-up of a powerful institution and whose ramifications can be felt all the way to the bottom of society, it is the nature of the societal structures that we have possessed for centuries that they contain domination at the their very cores. It is this relationship between master and slave that gave way to the world we know today.

The collapse of the manoral system in England enlarged the class of tenant farmers with more freedom to sell their goods and therefore more incentive to invest in new technologies. Lords who did not want to rely on renters could buy out or evict tenant farmers, but then had to hire free labor to work their estates, giving them an incentive to invest in two kinds of commodity owners.This victory of the oppressed over the oppressor would carried all the way to the mercantile class who have had to put their investments and business opportunity to the side in the interest of the state and its monarch, this would carry through all around europe. Suddenly a new idea was born, the idea of debate, could it be possible that a law of a land cannot be passed unless it is thoroughly debated and voted upon? *What A Concept!*. Democracy is born, rule by the people, for the people and of the people, from now own people would elect representatives to govern them, kind of. Democracy is in essence the will of the majority over a minority, domination yet again at the nexus of another societal structure. A doctrine that proposes that the rights and

powers of ordinary people are exploited by a privileged elite and then places itself at the centre of the struggle then emerges within this democratic structure, this doctrine is called populism. But populism as a type of political discourse or style is characteristically flexible and can thus be combine with a variety of ideologies, policies and political standpoints which may conflict and oppose each other, and history has undoubtedly shown us that the most popular idea is not necessarily the most thought out one. Now that we have discussed briefly on these ideas we should venture into the role money plays or has played within this context.

## 2.0.2 Tracing The Money

So far we have concerned ourselves with the nature and content of ideas of societal architecture, we will now discuss the ecosystem of fiscal ideas that uphold these powerful institutions. Money is any item or verifiable record that is generally accepted as payment for goods and services and repayment of debts, and it follows that, the more money one has, the more power and influence they have. It is at the very least sensible to infer a link between domination and money. The extensive history of money although important, is not what concerns us now, we aim to explore the nature of fiscal ideas which culminated to create the crypto-currency (Meaning relatively recent East Asian, European and American history). In 118 BC, The Chinese issued the first ever leather banknote. It was made out of a rare white deerskin and its edges were painted with bright colours, in 1290 AD the European explorer, Marco Polo, was amazed by Chinese paper currency and discussed it extensively in his book, "The Travels of Marco Polo". Some historians credit him for introducing the idea of paper money to Europeans. These leather banknotes were exchanged for goods and were key in the establishment of a nascent commercial system.

As the merchant class in 16th century England amassed more and more influence, the context of time within which they found themselves in (After revolts by the peasant masses against the dominant institution) allowed for a move from feudalism and serfdom into a new thing called capitalism. Mercantile Capitalism concerned itself with profits from buying and selling goods through emphasizing state power and overseas conquest as the main aim of economic policy, if the state could not make use or get to its own raw materials, according to mercantile capitalism, the state should acquire colonies from which the needed raw materials could be extracted. Colonies constituted not

only sources of raw materials but also markets for finished products. Because it was not in the interests of the state to allow competition, to help the mercantilists, colonies should be prevented from engaging in manufacturing and trading with foreign powers, thus mercantile capitalism was more similar to what it was coming from (Feudalism) than to what we now know as modern capitalism. It was not until the 18th century when new ideas started to propagate (notably from the economist Adam Smith) challenging the mercantile doctrines, this then gave way for the industrial revolution and thusly industrial capitalism which was characterized by a division of labor between and inside work processes and the routinization of work tasks. Industrial capitalism finally established the global domination of the capitalist mode of production. By the mid 19th century, in line with the teachings of the classical political economists, led by Adam Smith and David Ricardo, Britain embraced liberalism, encouraging competition and the development of a market economy.

It was the economist Adam Smith who is quoted with saying "Where-ever there is great property, there is great inequality... for one rich man, there must be atleast five hundred poor", I am no linguist, but that there MUST be at least five hundred poor seems to me to suggest that inequality and poverty is inherent in the theory of capitalism and not as a result of a few greedy bankers. Domination rears its ugly head again. This is the same critique the German Historian and Political theorist Karl Marx may have seen. Karl Marx saw capitalism as progressive historical stage that would eventually stagnate due to internal conditions, in his view, the dynamic of capital would eventually impoverish the working class and thereby create the social conditions for a revolution. Private ownership over the means of production and distribution is seen as creating a dependence of non-owning classes on the ruling class, and ultimately as a source of restriction of human freedom. Of course, Mr. Marx (Bless his heart) could not just stop at a simple critique, from this problem he pointed out, he proceeded to theorize the ideal structure of society, Marxism. Marxism advocates of a revolutionary overthrow of capitalism that would lead to socialism, before eventually transforming into communism after class warfare and the state cease to exist, emphasis on **OVERTHROW** and **REVOLUTION**, in other words, domination. It is not a coincidence that every attempt so far in up-righting the communist ideal ends in a domineering authoritarian state. It is this debate between capitalism and communism that has shaped the way societies organize themselves for a majority of the 20th century, all the way to the present time.



## Chapter 3

# The Spectacular Now

In the 21st Century, Capitalism has become the most used economic system in the world, it is implemented by both democratic countries (USA, Britain, South Korea) and not so democratic countries (China etc), in many emerging markets, the influence of banking and financial capital has come to shape national planning strategies. An interesting adjacency is then made between freedom and non-freedom, in the USA and Britain, democracy has become de-facto a competition between two parties, the party of liberalism and the party of conservatism but rarely any examination is made about the meanings of the words and ideas the politicians on both sides go about campaigning on, in Russia and Turkey the respective heads of state have made their respective constitutions their hand-maidens, making laws do backflips and disappearing acts at their command, China continues to remain a one-party state, North-Korea holds elections every 4-5 years where the voters are given a ballot paper with a single name, choice of candidates is non-existent, Saudi Arabia and the rest of the arab world continues to uphold its monarchies and/or theocracies, in sub-saharan africa the leaders put on their democracy caps during election periods, then put their military uniforms on after getting into office. The financial institutions within these nations then become a powerful tool for maintaining the status quo, either by acting as puppeteers where they fund campaigns and politicians to get puppet leaders in powerful positions to further the interests of big money (as in the US) or they can become the lapdogs of very powerful authoritarian leaders (as in Saudi Arabia).

Some suggest that the transition to an information society (which may be inevitable at this point) where a significant degree of activity focuses on the creation, distribution and reuse of information, will involve abandoning

some parts of capitalism, because the capital needed to produce and process information will become available to more and more people and more difficult to regulate, and is already closely related to controversial issues on intellectual property. All this, coupled with subjects that we have touched upon in the previous sections, now gives us enough context to speak about this sudden uproar for a new currency. We will now explore the genesis of a new money.

### 3.0.1 Ideal Money

In the July of 2002, seven years before Satoshi Nakamoto would publish his/her/their paper, the mathematician John Nash published a paper titled *Ideal Money* where he presented his theory of an ideal currency. In the paper he sites a few problems; the complete disavowal of the concept of a linkage between the US dollar and gold in 1971, which then was followed by a period of strong inflation in terms of dollar prices; secondly, the positioning of central banks such that they become "pardoners and printers of money", according to him a debt pardoner is an agency that can forgive the debts of the over-indebted or of those who would otherwise go bankrupt, banks can then be saved from failing, the government of a country that issues the locally accepted currency also thus pardon's its own "sins". I will now present his ideas in his own words on three things, the concept of an ideal money, how this money could become a standard and where and to what it will attach its values.

On the concept of an ideal money he says, discussing the adoption of the new euro-money: "The euro-money prospects opens up many interesting potentialities with regard to games of alignment. In general, membership in a social club is desirable only if there are nonmembers. A good alliance can be reduced to an absurdity if it becomes too broadly inclusive. However, a global money standard could have a value similar to that of standard measures such as those of the metric system. There is tremendous value in simply having prices quoted conveniently. with a euro-money standard, a manufacturer in Spain can give information simply to prospective customers in France or Germany. These conditions would be comparable to conditions in the United States, where items can be ordered from catalogs and shipped interstate with only the complication of the state retail sales taxes sometimes being involved".

On the standardisation of an ideal money: "The possibilities with regard to actually establishing a norm of money systems that could qualify as "ideal"

are dependent on the political circumstances of the world. If the world had in fact become a single empire with a central government, that what is now international trade, with shipping on the oceans through areas considered the property of no state, would be replaced by the equivalent of domestic commerce within the United States. This development would profoundly modify the circumstances relevant to good or bad systems of money. What i have to suggest is not appropriate for the world empire context.”

Finally, on the issue of value standards he writes: ”A possible non-political basis for a value standard that could be used for money would be a good industrial consumption price index(ICPI) statistic. This statistic could be calculated from the international prices of commodities such as copper, silver, tungstent, and so forth that are used in industrial activities”. In summary he says, take out the politics, take out the central banks and put real value back into money, what he was trying to theorize is very similar to Crypto-currencies. Crypto-currency already ticks most of the boxes, it has no central bank, it is not backed by another currency and slowly but surely it will get it self to a point where it will be standardized. Almost all governments in world history had the ability to issue sovereign fiat currency and almost all abused this power, crypto-currencies promise to break these monopolies, they will force governments to compete for the capital of their citizens and therefore less capital will be kept captive by people in power, and the citizens will gain more control over their own money. Now that I have made the case for Crypto-currencies, i will now give some critiques in the section below.

### **3.0.2 Oh Brother, Where Art Thou?**

Satoshi Nakamoto, whoever he/she/they is/are, has brought fourth quite a game-changing tool in bitcoin, but this has also put he/her/them in a peculiar position because as they present this new thing to the world, they present it not only as a finished product of computer and software engineering but also as an idea, this idea being that a payment system ought to be decentralized and powered by it’s users with no central authority or middlemen and our way is the way to do it. Since Intellectuals are people whose end products are ideas, Satoshi Nakamoto thus plays the role of engineer and intellectual at the same time. There has probably never been an era in history where intellectuals have played such a major role in society, when intellectuals who generate ideas are surrounded by a wide range of others who disseminate

those ideas, the influence of intellectuals on the way a society organises itself can be and is huge. The reader may have noticed an underlying theme in reading this paper, that every time a self appointed prophet of society emerges and presents ideas, with it's dissemination, what follows whether be it his intention or not is always complete carnage, so it is very important for the people to hold onto reasonable doubt, but intellectuals are usually judged by whether their ideas sound good to other intellectuals or resonate with the public. In the 20th century there was rarely a mass murdering dictator without his apologists among the leading intellectuals, the ideas that Karl Marx presented in the 19th century, although it was not his intention, caused whole generations to suffer and millions to be killed as a result, Bertrand Russel was among those intellectuals urging his country to disarm while Hitler was rapidly arming Germany for a war that would've put those same intellectuals in danger if he succeeded.

Supporters of cypro-currency as with every self-appointed saviour of society, do not take criticism very well, sometimes rightfully so as the criticisms of the cypto-currency come mostly from people who are not yet acquainted with the system. A better way to approach it is to say Yes, we know the network is de-centralised and distributed but cyptocurrency is still not appealing as a store of value because like fiat currencies, it is not backed by any physical commodity or precious metals. Yes, we know that the proof of work system helps to detect and prevent double spending but what happens when someone has a monopoly on mining?, we have seen how in China, the emergence of professional mining groups with specialized computer chips emerged that have cornered and dominate the production of new bitcoins, we may also be aware of the Jihan Wu , a co-founder of bitmain(a company which became a powerhouse by making ASIC chips used just for bitcoin mining), who was alleged to have been manipulating Bitcoin for his own benefit, Bitcoin is vulnerable to market manipulation not just by traders who have large sums of bitcoin but also by miners. Yes we know, we know that in a transaction, the hash of a block is timestamped to prove that the data must have existed at a time, but what happen's when the extremely rich decide to move their wealth to crypto-currency, we saw how recently a hedge fund specializing in volatility called One River Digital Asset Management quiteely bought 600 million dollars in cryptocurrencies, crypto-currency continues to become more and more appealing to big money not , if this continues, what will emerge is simply the same societal structure that we have had for years but with a different currency. In search of technical efficacy the crypto-

currency prophets seem not to mind the bigger picture, ok fine, you've made transactions more safe, trustless and secure, you've created a high value currency by having a limit of circulation (as in bitcoin), you've brought society closer to the illusive dream of a cashless world, but to what end? the rich remain rich and the poor remain poor.

## Chapter 4

# Over The Horizon

The future is coming, whether bright or not, one cannot say. Bitcoin recently surpassed a landmark price of twenty thousand dollars, the chief global strategist of Morgan Stanley investment management even suggests that Bitcoin could replace the dollar as a global reserve currency. The following passage is from a recent Bloomberg opinion article by a Mr. Tyler Cowen titled "*Cryptocurrency Is Not Necessarily the Future*" : "The recent run-up in crypto values seems to be driven by the possibility that major corporations will start adding them to their balance sheets. If you imagine crypto being treated like gold, and constituting say half of a percent of many balance sheets, that would imply a high price for the major crypto assets. Yet these corporations will want institutionalized, mainstream crypto assets, and they will not mind the notion of more heavily regulated crypto assets and crypto-linked financial institutions." As more and more powerful institutions adopt these new currencies, the crypto-future becomes less and less a fantasy dreamland and more and more a concrete inevitability. So far we have concerned ourselves with the causes and effects of ideas propagated within the societies of people from Europe, America and East Asia and we have omitted talking about how all this may affect the countries of Africa, South America and other parts of asia. I hope to change that in the section below.

### 4.0.1 People Of The Land

Africa, South America and South Asia has seen it's fair share of civilizations, from the Songhai Empire in what is not modern Mali, to the Aztec Empire in what is now modern Mexico,all the way to the Maurya Empire

in what is now modern India, Pakistan and Nepal. It seems the nature of existence though that the highest of highs will eventually be followed by the lowest of lows. The brittanica dictionary defines Western Colonialism as "a political-economic phenomenon whereby various European nations explored, conquered, settled, and exploited large areas of the world", colonialism was and is very consequential in making of the world we know today, it is recorded that before the Europeans voyaged to the Americas, the peoples of America(The indeginous Americans) had no small pox, no measles, no chicken pox, no influenza, no typhus, no typhoid, no cholera and no whooping cough. This contact with new diseases will then cause for 80-95 percent of the Native American population to be leveled within the first 100-150 years following 1492(When Columbus "discovered" America). It is recorded history that the British Empire in India was so ruthless in it's economic agenda when operating in India that they exploited the land's natural resources so much so that it culminated in a famine, multiple famines in- fact, the worst one being in 1943 where three million people died. The legacy of Leopold the Second lives on today, a legacy of ruthlessness on huge scales, it was of course in the "Congo Free State" that was allocated to him by the Berlin conference where he enslaved and murdered millions of the congolese people in the name of power and wealth.

The reader should not make the mis-step of thinking of colonialism as a thing of the past, in Benin, Burkina Faso, Côte d'Ivoire, Guinea-Bissau, Mali, Niger, Senegal and Togo, there is an organization call UEMOA, it was established to promote economic integration among countries that used the Communauté Financière d'Afrique (CFA) franc as a common currency,the organization administers the West African CFA franc, now a Euro-pegged currency . This would turn out to be a big mis-step as the foreign reserves of the CFA African states would then be deposited in the French Treasury, but no African country is capable of telling you exactly how much of this hard-earned foreign reserves belong to them. Only France has the privilege to that information. The French Treasury holds billions of dollars owned by the African states of the francophone nations of West and Central Africa in its own accounts and invests them in the French Bourse or Stock Exchange. The Africans deposit about 85 per-cent of their annual reserves in these accounts as a matter of post-colonial agreements and have never been given an accounting for how much the French are holding on their behalf, the French have been acquiring and holding the national reserves of 14 countries since 1961. The International Monetary Fund and The World Bank continues to

give 'debt services' and 'aid' to poor countries all around the world thus putting them in debt they know will be difficult to pay back without cutting off an arm and a leg. Recently we have seen how Turkey has been increasingly interested in the East African country of Somalia, it has in-fact been providing Somalia with tremendous amount of humanitarian aid, military training and new economic oppurtunities, not for nothing though, in 2017 Turkey unveiled a 50 million dollar military base in Mogadishu to be operated jointly, the reason for it's sudden care for the people of Somalia continues to be unknown and disputed.

Hence the coming of this new currency could finally spell the beginning of some sort of emancipation for the systematically in-debted countries of the world, this would mean the abandonment of any sort of dollar or euro denominations in large swaths of the African Continent and in Carribean countries like Haiti and Cuba, the deviation from the norm in finance is likely to cause a deviation from established instituions in other areas like journalism, education and even government. If crypto-currency does indeed do what it supporters say it will, this would mean a new frontier for the world, this would mean a new frontier for the people of the land.

#### **4.0.2 Conclusions**

In this paper we have endeavoured to explore why and how the ideas of the years past have gotten us to this point in time, the time of the crypto-boom, no doubt crypto-currency has been a major topic in the global financial system, their growth has been able to get the attention of many on-lookers. Though there has been great volatility in the exchange rates of crypto-currencies, it is important to remember that crypto-currencies are still in ther infancy and it is still not clear as to when they will be maturely traded in the markets globally, it is only after the required trust in the crypto-currencies after which they will be used on a major scale, without this, the bubble will surely burst, but we have already seen a positive trend in this regard as some countries(like Venezuela) have begun to issue national crypto-currencies. The crypto-boom then provides an alt currency for less developed countries(and also the individual) which then opens the doors of economic transformation. With Bitcoin achieving the feats it has recently been achieving , it is no doubt that crypto-currencies will change the global financial landscape for ever.



# Appendix A

## References

1. Cowen,T.(2020,Dec 29). *Cryptocurrency Is Not Necessarily the Future*.Retrieved from <https://www.bloomberg.com/opinion/articles/2020-12-29/bitcoin-hits-new-high-but-cryptocurrency-s-future-is-uncertain>
2. Nash,J.(2002,Jul). *Ideal Money*.
3. Enyan,M.(2019, Sep 18). *African Countries Still Pay Over 500 Billion Dollars as Colonial Tax to France Each Year*.Retrieved from <https://thepeoplesnewsafrika.com/still-pays-colonial-tax-to-france/>