FCL*Capital*

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Digital Alchemy

As in most intriguing stories, ours starts with a founding myth: back in the now distant year of 2009, in a far-flung corner of the internet, in an obscure open forum, for a few unknown hobbyists, a man was proposing a solution.

He signed on as Satoshi Nakamoto. He was proposing a solution to the central authority problem, a quest as old as the internet itself. The basic problem was how to not depend on a central authority when dealing and transacting online, since everything that is digital, a music file, an email account, a social media password, or a cash transfer, could be copied, hacked, and so on?

As his original paper would go on to argue, Nakamoto had a few elegant inventions in mind. [1]

"Commerce on the Internet has come to rely almost exclusively on financial institutions serving as trusted third parties to process electronic payments. While the system works well enough for most transactions, it still suffers from the inherent weaknesses of the trust-based model... What is needed is an electronic payment system based on cryptographic proof instead of trust, allowing any two willing parties to transact directly with each other without the need for a trusted third party."

These words were in the first two paragraphs of Nakamoto´s white paper that he published online on October 31st, 2009, exactly eight years ago as we write this letter (as in any respectable myth or religion we also have, after all, a holy text.)

1 https://bitcoin.org/bitcoin.pdf

The first reaction, obviously, was skepticism. Everyone ‘’knew’’ that the central authority problem was impossible to solve.

However, the intriguing part, even for those hobbyists and nerds dispersed around the globe, was how elegant and sophisticated “Nakamoto´s” suggestion was. He proposed peer to peer encrypted transactions that were in theory impossible for fraudsters to harm and a system of verification and third party labor that, in an obvious reference to the most important currency in humankind´s history, gold, would be called ‘’miners’’.

Then, very slowly, bit by bit, a few dozen converters started to emerge. A few of the hobbyists became more and more intrigued. Bitcoinforum.org and a few others corners of the internet started to become lively. A mysterious founding father, a holy text, and a few early apostles, all of the trappings of a 21st century religion were being formed.

The following year, 2010, Bitcoin was officially launched, and started being called by the few people that knew about it, as “internet money”. Not that Bitcoin had any value, of course, very far from it. Those nerds merely had fun sending it around. Then a few hard core libertarians, who have always dreamt of stripping government out of its greatest power, seigniorage, or the power to issue currency and profit from it, started to see potential for very different reasons. Then one or two very astute investors that were not in it for political reasons or for fun, but, horror!, for money.

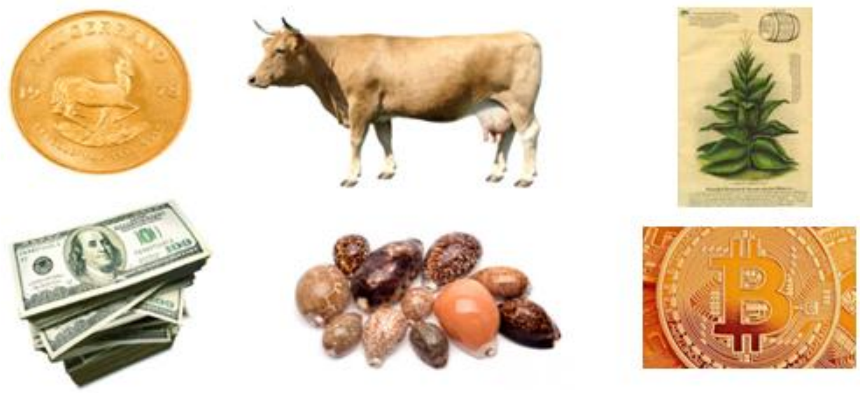
Here, the parallels with the internet and the computing revolution in the 1970´s and 1980´s are hard to resist. Why only hobbyists were interested at first and no business would even dream about dealing with this technology? Simply because, in the same way as computers in the 1970´s things were still too incipient, too uncertain, too crazy for any reputable business to risk his precious time and capital on such an endeavor.

As a consequence, this internet money was obviously of no interest to anyone “serious” or on the mainstream.

This way starts our ‘’Genesis’’. With a few nerds dispersed around the globe and calling each other nicknames in internet chat rooms. Among these early ‘’disciples’’ that were interested in Nakamoto´s idea and started developing Bitcoin with him, was Gavin Andressen who would in some ways take the realms of the project after Nakamoto´s disappearance. He and a few others were part of a special inner circle and were in good faith in the creator´s eyes. We know all of this because of communications, encrypted email messages and blog posts that remain online to this day and add to the folklore.

Around that time, a few internal tests were run and Bitcoin, surprisingly, seemed to work. It could be sent back and forth and it indeed seemed to be unhackable as Nakamoto promised. There was only one problem: it was obvious that, apart from that small sect, this technology was of no interest to anyone and it was obvious that no one in the “real world” would accept their “funny internet money”.

Chart 1: Salt, Gold, Shells, Paper Money, Bitcoin



But the early Bitcoiners wouldn´t give it up so easily. After sending Bitcoins back and forth among themselves and mining the first hashes, the disciples were determined to test Bitcoin´s use in the real world. But how? So, on may 22nd 2010 one of them, a man named Laszlo Hanyecz had an idea posted on the Bitcoin talk forum:

“I'll pay 10,000 bitcoins for a couple of pizzas. Like maybe 2 large ones so I have some left over for the next day. I like having left over pizza to nibble on later. You can make the pizza yourself and bring it to my house or order it for me from a delivery place, but what I'm aiming for is getting food delivered in exchange for bitcoins”.

So another enthusiast, a guy from London agreed to buy the pizza for Laszlo in exchange for his 10.000 bitcoins that were transferred online. Then, the Brit user obviously called from England to reach Papa John´s pizza in California and had them deliver the pizzas to Laszlo as agreed.

Certainly, a very surprised pizza delivery guy knocked on Laszlo´s door in California and said: *“a pizza delivery order sent to you ...errr….from London”.*

The 10.000 bitcoins for a couple of pizzas were Bitcoin´s first real world transaction. They would also turn out to be history´s most expensive pizzas. The current value of these 10.000 Bitcoins in 2017 prices is U$ 70 million dollars.

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We will start this letter by the end. This house thinks that the nascent ecosystem of digital currencies may be the most exciting technology of our lifetimes, on par with the internet. However, at the same time, as value investors, we are certainly not proposing that our investors should “become miners'' or sell everything and buy bitcoin” or embark in any other way of investing in a non-diligent manner. Actually, the story is, as always, more complicated than it seems.

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Money is certainly one of the most important and consequential innovations of mankind. For almost as long as there is civilization, even in remote tribes there has been a need to store, transact and keep track of wealth.

As most economic textbooks tell us, the two most important functions of a currency are as a means of payment (meaning, you use it to transact with others) and as a store of value (meaning, you can use it to park your wealth there).

Also, to be really useful, a few physical characteristics should be present in a proper currency. It should be divisible, to facilitate trade and transaction allowing for smaller and larger monetary values. It should be portable (if you can´t carry it with you it is not that useful), it should be able to properly maintain its value (and when it doesn´t like in Germany in the 1920´s, republics usually collapse), and so on. Finally, the most accepted means historically had some tangible useful value, like salt and gold.

Unsurprisingly, humanity has tried many monetary methods over the centuries. From shells and salt in ancient tribes that lived close to the sea to cattle for the ones who lived far from the sea, and also, gold and silver during the middle ages that was when humanity reached a new level of monetary sophistication. We find it particularly fascinating the fact that in prisons around the world, where inmates are usually prohibited from carrying money, cigarettes became spontaneously a de facto currency used to trade favors and services from one inmate to another. That goes to show how powerful money is as one of mankind's most useful inventions.

Naturally, since the advent of precious metals as monetary instruments, governments have been trying to fool people. When finances get into bad shape, many kingdoms in medieval times tried their luck with currencies that were "debased", for example carrying the sign "100 grams of gold" but instead, having silver or having less gold than it claimed. So it was born what is perhaps, until this very day, the greatest form of theft from every single national government to their citizens: seigniorage, or in other words, the difference between what governments earn when they issue their currency to what it costs them. When Uncle Sam issues a $ 100 dollar bill for example you can bet that it cost them a lot less than that in printing presses, in paints and colors used in that piece of paper, and so on. The difference is seigniorage, a state profit.

But it did not used to be like this. Most frauds by governments back in medieval times were discovered by their citizens. Rebellions used to happen. So for the most part, the money in circulation was at least reasonably "honest". The gold system was in other words, restricting governments' power.

As the world progressed and national governments were formed, most national currencies were still, at least in theory, backed by gold. That meant that you still could exchange your dollars for gold although in normal times, few people wanted to do it. But at least intellectually, you could answer to the question of what is the value of a dollar bill? With, it is worth "x grams of gold". There was an outside system measuring it.

Then a consequential fact that relatively few people still know about happened. In 1971 due to yet another financial crisis, the Nixon administration took America out of the gold system. The dollar would become backed by thin air. But the assurance of the

US government. And the dollar was not alone. Most other nations either had already done so or followed suit.

In other words, you can look in the mirror and tell yourself that any national currency, contrary to public perception, any one of those notes, be it Us dollars, Euro, Yen and so forth, is nowadays, for all intents and purposes nothing more than funny money, as good as monopoly money. Paper out of a printing press that gets colored and by some magical properties that even David Copperfield wouldn’t be able to explain, is suddenly worth $ 100 dollars. Keep that in mind when someone criticizes Bitcoin because it has no “intrinsic value”.

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Ok, to be fair, we may have gone too far in our point. Let´s be real: a dollar bill is a promise from the US government, a government that has powers of taxation to make good on a pledge. It is obviously on a different category as compared, to say, monopoly money.

Nevertheless, we stressed and exaggerated that point for one reason: we want to convince you for now, that money is a human convention. The value of a note is the value that people agree that the note has. The only reason a beggar on the street wants your money or you accept when someone else hands over to you $ 50 bucks is because you have a strong belief that the next person will also accept it. That´s also the reason why even when governments left the gold system, currencies mostly kept its value. Because it is a human convention. People believed in its value so it has value. But it must be noted that, in a dramatic way, this is not always the case. As 1920´s Germany and modern day Venezuela show, when badly mismanaged citizens start to become suspicious this social convention starts to crumble. Give $ 100 to an American and he will (still) feel happy. Give bolivars to a Venezuelan and he will feel offended. In Zimbabwe, the local money was literally worth less than the paper used to print it.

Furthermore, if this social convention is good for national governments it is also good for any form of money.

Why has Bitcoin raised in price like it did? Well, because the magic happened. Back in 2009 when dreamt by Nakamoto, Bitcoin was not money. Then it started being accepted, it started being desired. For all intents and purposes it BECAME money.

Chart 2 - bitcoin price 2013-2017

After its Genesis, early Bitcoiners would of course have to go through their desert peregrination. As the numbers of users, both or the currency itself as the number of posts and users on the forums grew exponentially, it started to seem that Bitcoin was even destined to be something.

The currency started gaining acceptance very gradually. For a few months in the year of 2011, one of those hobbyists listed on Ebay a collection of 10.000 Bitcoin to be sold for $50 dollars or the highest bidder. No offers were given and after almost a year the offer was withdrawn. Had someone taken it and simply kept the Bitcoins until the date this letter is being written, this bidder wouldn´t have to worry about money for the rest of his existence.

But those days were long before stores and now even ATMs started accepting the internet money as an option of payment. The bigger prize, still in the future, will happen if Amazon someday accepts them and Wall Street starts trading in structured products. This would bring new classes of users and would probably mean further rises in its price.

The fact is that, since the early days, the system showed a trajectory of being tested and passing on the tests. Sure, many hacks, thefts and problems, as would be expected occurred and still occur to this day. To name what´s possibly the most famous, MT Gox, a Bitcoin exchange that was then the world´s largest, based in Japan, spectacularly collapsed in march 2014, simply losing to a thief 7% of all bitcoins then in circulation , worth nearly half a billion dollars at the time[2].

But contrary to many, we don´t see that as a sign a bitcoin collapse in eminent. First, let´s be honest: our industry, finance, is not exactly free of crashes, frauds, unscrupulous people and get rich quick schemes and all the like. Secondly, paradoxically, the increase in frauds and even in thefts, criminals and kidnappers demanding bitcoins as payment is a sign of success not of collapse: they demand it because it has value, because it is gaining acceptance. Because, coming back to the magic, it is becoming “money” whatever this magical thing really is.

Then, suddenly another interesting event. Satoshi Nakamoto, simply started to communicate less with his followers. His posts, obviously always eagerly awaited in bitcointalk and the other forums and threads, became less frequent. He then started to communicate only with Gavin Andressem and after an even longer than usual time period when Andressen sent a few questions to him, he just replied to no longer be contacted, because he had simply ‘’moved on to other things’’ and wishing them good luck.

2 https://www.wired.com/2014/03/bitcoin-exchange/

Obviously, the world had not moved on. The financial press started on its own an unprecedented “man hunt” to find out who Satoshi Nakamoto was and what he had in mind for the future of money. In an article titled “We need to know who Nakamoto is” the usually restraint New Yorker magazine established the most plausible theories[3]. On the one hand, Nakamoto seemed to be British, since some of his early posts had words and keyboard typography that indicated British English. But there was also conflicting evidence. Then, people focused on the name. Suddenly, everyone on the globe that happened to be called Satoshi Nakamoto was investigated, including apparently one math teacher in California that enjoying his sudden notoriety when he had his house surrounded by journalists, “confessed” to being the real Satoshi Nakamoto and offered to talk to the first journalist who offered to pay for his lunch, an offer promptly taken.

Further theories suggest someone on the east coast of the US, since international time from 5AM to 12AM meaning US East cost time from 12am to 6am were the time period when Nakamoto posted less frequently on the early days, meaning he was probably sleeping.

But the theory this house personally thinks deserves most merit is that Nakamoto is not in fact one, but three persons, the same three that registered some related patents back in 2008, short before the famous white paper. We don’t know much and certainly don’t know for certain. We do know that Nakamoto, being whoever he is, mined the very first mining block, wrote alone or in a group in case he is more than one person the early codes and then vanished not to be seen again to this day.

3 https://www.newyorker.com/business/currency/we-need-to-know-who-satoshi-nakamoto-is

The only thing certain is that, as Bitcoin grows in acceptance, the Nakamoto mystery only adds fuel to the fire. Even more so, because if the Bitcoins Nakamoto mined in the early days are still in his possession, as they probably are, he would be worth close to $ 10 billion us dollars today. And he certainly didn´t want to be found: all of his messages and posts were encrypted. His communication was as secure and the currency he created.

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To talk about bitcoin and digital currencies we also need to talk about the blockchain. Blockchain was actually a workaround that Nakamoto invented to make Bitcoin work but it gained a life of itself. In fact, according to many, it may the only interesting development out of his white paper. The real revolution instead of the “illusion” of cryptocurrencies.

Another of mankind´s great inventions, besides money, was the double entry bookkeeping system. Until the 14th century, corporations could only have what its owners could count and remember about. A few cattle. A specific number of precious metals or houses. And so forth.

Then an Italian friar, called Luca Pacioli developed a system that would give birth to modern day accounting. The equation assets= liabilities + equity, nowadays so commonplace for any accounting student, was new at that time. That development, of keeping records of enterprises, would then make possible the rise to global navigations and later, to the modern day corporations. Nothing would be possible without that system developed by that monk.

We will argue that blockchain is the first major development on top of double bookkeeping account. At its core, any blockchain is a growing list of accounts. Every few minutes a new block adds to the line, everything chained together since the first in an unbreakable “chain”. This possibility of cryptographically keeping records online of everything will itself allow for many new business models and revolutionalize several industries including finance and insurance. But not only the ones related to them. Revolutions as far away as in commerce and health industries are in sight thanks to the blockchain.

We think both blockchain and the ecosystem of cryptocurrencies are revolutions in their own right. We will focus this letter on the latter but are certainly also watching developments in the former. To anyone wishing to further their knowledge about the blockchain revolution in corners further away from cryptocurrencies, we will recommend the excellent “Blockchain revolution” book, by David Tapscott.

For the purpose of this letter, focused on cryptocurrencies, however, we will only argue that blockchain is an elegant solution that allowed cryptocurrencies to flourish, because now there is an unbrakable cryptographic record of them that made them safe.

Digital currencies are the first major use and one of the things that blockchain made possible and there will certainly be numerous others. Most certainly haven´t been thought about yet.

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So why are we so bullish on the ecosystem of cryptocurrencies? Why do we think there is a revolution there?

First of all, because of the fact that what has always made the world go forward, the heart of entrepreneurship, has always been trial and error. Once we take away the monopoly of currency issuance from governments, a Cambrian explosion might occur.

When thousands of entrepreneurs try different models with new ideas for currencies, certainly, as is the case of most businesses, most will fail spectacularly. But a few might transform the planet for the better. That was the case in the internet and that will be the case in crypto.

Just look at coinmarket.com, probably the most comprehensive list of cryptocurrencies. There are already thousands of options and the list will only grow. The most famous, obviously, is bitcoin, which is becoming, at least in 2017, a kind of digital gold, more store of value than payments revolution. We are even more bullish on Ethereum, which has more advanced technology and carries in itself the possibility with transaction of “smart contracts” that could revolutionalize commerce.

The third most valuable cryptocurrency on the date we write this letter, Ripple, was made to facilitate international transfers and payments. This is its niche and it is designed for that.

Obviously, it is stills early days and no one knows for sure who the big winners are going to be. But the ecosystem as a whole will, in our opinion, transform commerce, society, politics and business.

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We have been avidly studding the internet of the 1990´s. That was the last time when humanity saw a new technology that could transform everything. Thousand rushed to make their own amateuristic websites. Some rags to riches stories were pumped by the media. Uncountable scammers and unethical businessmen appeared. And sure, nowadays we know the Amazon, Facebook, Google, and a few others emerged as huge winners but back then the situation was crowded, messy and unpredictable.

But we would argue, an astute observer, may not have been able to pick specific winners, but could already tell that the industry, as a whole, would forever change the world. Likewise, when asked if we are bullish on Bitcoin or Ethereum this house answers that, more than that, and before that, we are bullish on the crypto ecosystem.

Then as now, skeptics are abound. To stay in one example, a very respected and preeminent technologist, called Clifford Stoll published a column stating in Newsweek magazine, in early 1995, a year after AltaVista was launched and after Netscape was gaining traction that, the whole concept of the internet was “oversold” and “hyped”. He went on to laugh at those who ‘’think that a database will replace our daily newspaper, or that people will change human contact and have meaningful commerce, pizza deliveries and more on the internet”, calling this a fantasy , and ending his column asking that if the internet hype were true why his local mall did more business in an afternoon than the entire web in a month? [4]

But he was not alone. A 1999 article of Barron, a year after Google was launched, argued not only that Amazon´s stock was overvalued (a very reasonable assumption back then that this house would probably have shared although one that in hindsight turned out to be incorrect) but also questioning if the company would even survive. This is specifically ironic with the recent news that Jeff Bezos is now the world´s richest man.

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4 http://www.newsweek.com/clifford-stoll-why-web-wont-be-nirvana-185306

The fact is that the future is never easy to predict. And we will never forget our mission as value investors: to be conservative, to remain open to the possibility of being wrong, to never “bet the house” and care about compounding over the long term instead of looking for “big winners”. That is the core of what we do. At the same time, completely shutting down to new possibilities just seems silly to us. A middle term is in order.

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Exciting as these new crypto currencies like Bitcoin, Ether and countless others are, each with their own possibilities and challenges, we will argue that there is even a more fascinating aspect of the crypto revolution.

As the ecosystem of cryptocurrencies started to emerge in the past couple of years, some currencies were thought as a monetary experiment. Some with bond like properties, some inflationary, some disinflationary, some linked to gold or the US dollar. That´s the innovation we were talking about and winners will emerge. Let a million new currencies bloom. But even more intriguingly, some, the ones called “tokens”, were not aimed as a monetary experiment but had specific uses inside a particular business.

For example, a virtual online casino that runs on blockchain could develop a coin that had as its sole purpose to be used in its business. Or a social network that, instead of monetizing its business with adds and banners, like Facebook, would demand a specific “token” to be bought by its users for you to log in and use it. Or, in the case of Ripple, a coin to be used as intermediary in transactions between not so liquid pairs of other fiat currencies that were being traded. A facilitator, necessary for its particular ecosystem.

In all of these cases the logic is similar: since these coins have a limited supply, if these businesses turn out to be major successes (always a small possibility for any startup) demand for these coins will grow (since more users will want to use its services and will need the coins) faster than supply and the coins will increase in value.

Think about a supermarket voucher. A supermarket will open across the street and you are given a $ 10 dollar coupon. Is the $ 10 “real money?” Well, you can use it in the supermarket, yes. But you can´t use it anywhere else, so no. In other words, it is a specific-use money.

The amazing thing about tokens is that, if they turn out to be a success like they are already becoming, they may revolutionize finance, markets and businesses. Nowadays, as every investor knows, equity is what founders want to keep. It is what companies revolve around. You want to give as little of your company to outsiders as possible. As equity investors, this house tries to analyze companies to find out what they are really worth. This is all, obviously, since that´s where the money is.

Well, how about the fact that in Switzerland, the country that saw the greatest number of token issuances, some BLOCKCHAIN projects are already being incorporated as “foundations”? It works like this: since you are a foundation you don´t pay taxes. At the same time, obviously you want to make a business that changes the world. You want your team to have long-term incentives to remain on board. As in any startup, you dream of being the next Mark Zuckerberg. Well, here is the trick: you make a project that has at its heart a token and your team retains this token, and not equity, as an incentive. These tokens are used in the ecosystem of your business and are traded on crypto exchanges. Yes, they resemble equities but they are not technically part of companies. They are digital coupons. In other words, for these business, the river of value creation flows is a slightly different way.

It turns out that in the second and third quarters of 2017, more money was raised for blockchain projects this way than though the traditional venture capital investments.

Chart 3: Money raised by ICOs venture blockchain companies

Exhibit 8: The pace of ICO fundraising has now surpassed Angel & Seed stage Internet VC funding globally
Total Funds Raised by month ($, millions)

Note: ICO fundraising as of July 18th, 2017, per Coin Schedule. Angel & Seed VC funding data as of July 31st, 2017 and does not include "crowdfunding" rounds.

Source: CoinSchedule, CB Insights, Goldman Sachs Global Investment Research.

To be fair, not every company will rush to design tokens, of course. In the same way that most successful websites came from companies that did not have a "legacy" physical infrastructure, the Amazons and Facebooks, instead of the Walmarts and the AT&Ts, we suspect the most successful tokens will come from completely new business models on the blockchain. Business that couldn't exist before blockchain and crypto.

Clearly, tokens work best for businesses where there are network effects since a token in the heart of their models that could appreciate makes complete sense. We don´t envision a world where a traditional business, say a regular retail store, issues tokens, at least not in the foreseeable future.

That being said, we will argue that tokens will change the world. The thing that strikes us the most is how backward financial markets are. Moreover, we got used to it. Exchanges that work Mondays to Fridays, and close during the evenings. Simple financial bank transfers and transactions that take days to be cleared.

And most of all, the tyranny of geography. It is amazing and revolting, in this architecture developed in the past couple of centuries, how national states were at the heart. Each country with a national exchange. First, it was almost impossible for an investor in country A to buy shares in country B. Then with the advent of financial globalization, the situation got somewhat better and this house and its Opportunities fund is very proudly bringing financial globalization to Brazilian and Latin American sophisticated investors.

But private markets and venture capital are an even worse dilemma. As it happens, until Chinese companies started flourishing in the past few years, virtually every major internet development in the past two decades happened in California. And if it´s still relatively difficult say, for a Brazilian investor to buy shares in Google, it is almost impossible for an investor in small startup companies, wishing to invest in the future Goggles and Ubers of the world, not to be based in California.

Tokens change all of this. They are so cheap to issue (some companies raised as little as $ 100 thousand dollars) so fast and so global in nature that they are already crashing the geographical barriers of investment.

What´s more, since blockchain companies are virtual and global from day one, there are many projects this house has been analyzing where we even have a hard time locating where actually the founders live. Some teams are clearly mixed with partners living in different time zones and collaborating online. Some models are completely new and take time even to understand.

Again, as it happens in entrepreneurship it is obvious that most new models will fail and most investors will lose. That´s part of progress and how humanity marches forward. Trial and error. But at the same time, why should we, in the 21st century, think of companies as “belonging” to a specific country? Or to think that the current bricks that models the current building blocks, like states and corporations, should always stay in the game and lead it? What if something new changes the picture for good?

But that ´s not all: tokens are incredibly liquid. This at a time when, at the global stage, stock markets are dying. Back in 2000 there were some 8000 public companies in the us markets. Nowadays less than half remain. A big part of the reason why is that it is very expensive to maintain a public company. A consequence is that each time a bigger share of the upside goes to private investors. The average Joes are each decade getting a worse deal. They only have access to the leftovers.

When Microsoft went public in 1986, it was worth a couple of hundred million dollars give or take. In the following decade, it appreciated almost a thousand times.

When Google went public, in 2004, it was already worth close to sixty billion US dollars. Still it appreciated more than seven times so far, becoming one of the world´s most valuable companies.

Uber, at the time we write this letter, is already worth close to seventy billion us dollars; according to internal transactions in private markets. It still hasn’t gone public, due to costs, the distraction this brings and the necessary changes it would have to make. Even if it keeps appreciating and flourishing after it does, one thing is certain: unlike in Microsoft’s case, the biggest upside of this amazing company has already been captured by private investors. On the day it becomes public, the greatest wealth creation will already be in the past, not the future. That´s the opposite of the original idea behind public stock markets that were designed to fund projects and innovations.

Tokens are so cheap they seem perfect for early companies. So in a way they are a tool for nascent enterprises to raise money. But once a token is issued it can be sold, day and night, 365 days a year. In other words, despite being a substitute for venture capital, they are also, like public stock markets, a liquid investment. Moreover, they are completely global in nature, not being subjected to any specific legislation or national stock exchange. This combination makes them fascinating instruments that could potentially revolutionize finance.

Sure, many obstacles remain. Legislators are clearly irritated about their loss of power and status, and, to be fair, are also understandably worried about the inevitable frauds and schemes that this system will entail.[5]

A recent informal survey this house did concluded that only 10% of projects that already raised money with tokens already have a working product and a considerable part of the remaining 90% have a great chance of being scams. We are under no illusions: it is going to be very messy and dangerous.

Still, this house thinks that the wiser approach is being shown by Switzerland and Singapore which already have given the green light for most token issuances and are very friendly to blockchain companies. Although it may be hard to resist the temptation to regulate, over the longer term, in our opinion, these countries have great chances of becoming to the blockchain age what Silicon Valley, for a combination of factors, was to the internet age.

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5 Recently the US Sec and the Brazilian CVM have shown a somewhat in between position of claiming that that ‘’may act’ depending on the specific issuer.

Although we understand the desire to protect small investors and prevent frauds and tax evasion, it is inevitable that regulation at this stage may also harm innovation. Moreover, since tokens can be raised anywhere, it is debatable if regulators can really regulate anything. The power seems to have slipped from the hands of national governments and as libertarians we can´t pretend not to be thrilled.

Tokens are a new asset class. Every new asset class in the market has historically aroused suspicion. Commodities that had no yield, junk bonds that could default and were deemed “speculative”, and most especially, indexes that, when pioneered by vanguard in the 1970´s were thought as “immoral” and , since they couldn’t beat that market, “made only for fools”.

However, time is a wiser judge than emotion and gradually these new instruments gained acceptance. Tokens stand at the intersection of three developments: stock markets, venture capital and crowdfunding but take each of them to new levels. And just like the most promising applications of commodities instruments and indexes took time to flourish, once again, the most promising applications and business models for tokens have not been thought yet.

And a few additional reminders are in order. As stock investors, we have encountered quite a few times with some well known “agency problems” Any venture investor knows about future rounds that bring dilution to its stake. Any stock investor knows that incentives may differ between management and shareholders, (a kind of conflict more common in developed markets) or between controlling shareholders and minorities (more common in emerging markets).

The fact is that, equity, as an asset class revolutionized the world, since the days when the East Indian Company was alive and kicking. But no instrument is perfect. Tokens bring a brave new world of different and maybe more aligned incentives. Interestingly, they also bring on board a new kind of agent, the customer, since the line between customer and token holder with a financial incentive on the future of the company becomes blurred. Enters the "customer shareholder", or as they like to be called, the "evangelist". Certainly, this brings new problems and new exciting possibilities. Some even argue that if tokens gain sufficient traction the company as a model to conduct business may be in danger since with a right and complex structure of incentives, decentralization could be the norm, the costs of transaction could fall and corporations wouldn't be necessary anymore.

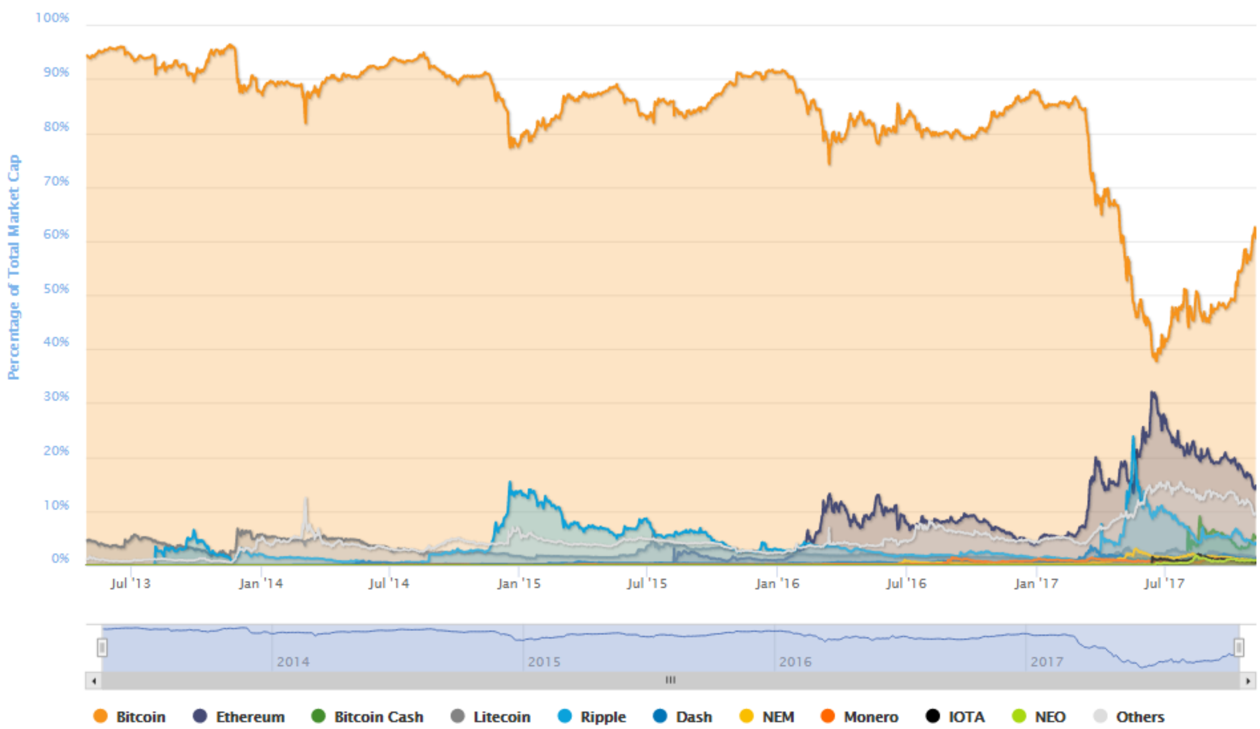
It is still a long shot. But closer to our reality, this house has always been specifically fascinated and interested in the intersection between public (i.e. traded) and private (non-listed, long-term) markets. We adopt as a philosophy a long-term view for traded securities. A private equity framework for public markets. So what fascinates us the most is the possibility that a new, nonstop financial market where the distinction between public and private securities disappears could be on the horizon in our lifetimes.

Chart 4: Ethereum price

Chart 5: Largest market caps tokens

#	Name	Platform	Market Cap	Price	Volume (24h)	Circulating Supply	Change (24h)	Price Graph (7d)
1	OmiseGO	Ethereum	$662.091.872	$6.49	$21.900.600	102.042.552	3.34%	
2	Tether	Omni	$495.499.387	$1.00	$310.462.000	494.061.667	0.27%	
3	EOS	Ethereum	$438.077.551	$0.965370	$26.849.900	453.792.381	-7.62%	
4	Ardor	Nxt	$197.218.484	$0.197416	$608.439	998.999.495	-1.25%	
5	Augur	Ethereum	$187.828.300	$17.08	$909.100	11.000.000	2.91%	
6	TenX	Ethereum	$168.651.235	$1.61	$1.794.360	104.661.310	0.32%	
7	Populous	Ethereum	$167.638.815	$4.06	$448.700	41.252.246	9.55%	
8	Golem	Ethereum	$160.870.142	$0.193114	$2.642.470	833.032.000	2.45%	
9	MaidSafeCoin	Omni	$158.155.754	$0.349475	$2.541.290	452.552.412	8.30%	
10	Binance Coin	Ethereum	$155.630.205	$1.57	$5.173.820	99.014.000	3.54%	

Chart 6: Bitcoin dominance - percentage of Bitcoin of total cryptocurrecies market cap



How this 21st century market will be? Will our children laugh at us once we tell them that we could only make payment transfers during the day because “banks would close”? Will they laugh if we tell them that each country had its captive market and you could only trade securities from Monday to Friday at business hours? Will they have a hard time understanding that big companies were usually listed while the small ones, the ones most in need of raising money, had usually to remain private, thanks to the Sarbanes-Oxleys and other onerous regulations of the world?

We don´t know these answers of course. But we will argue something humbler.

We live in a world with a balkanized banking system and where many incumbents have a desire to keep things as they are. We live in a world where one of humanity´s most pressing problems is the fact that hundreds of millions of poor people that migrated to richer countries but still want to send money to their families back home, have to incur expenses of some 20% and risk their security to wire their money to their loved ones in need.

We live in a world where government finances got out of control. Being Brazilians, we specifically know what we are talking about but even if you live in most of Europe or the US this still rings true. And a large part of the explanation is that, well, because as governments, they can.

So we will not argue that Blockchain and cryptocurrencies are the future. We will argue something humbler. It SHOULD be the future. Standing before these problems, this dying financial system, what a wasted opportunity, what a pity, what a loss of human potential if blockchain turns out NOT TO BE the future.

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Over the past year and a half, this house has progressively become more interested in cryptocurrencies. The fact we are proud libertarians obviously helped. We were interested and debating bitcoin long before it became obvious it had business applications. But nowadays, it is the business potential that most fascinates us. All in all, the same way that over the past 25 years most of the world´s new billionaires came either from the internet or finance, our guess is that in the next 25 most new billionaires will come either from Asia (our opportunities fund is keeping an eye on that) or from global blockchain companies that may have its founders wealth tied not in equity but in tokens.

And how to explore that? On one hand, we bet that traditional markets will accommodate the new technologies somehow. In fact, a new ethereum and a brand new bitcoin ETF just started trading in Sweden. But also, we will reveal that we are planning a new fund to specifically focus on cryptocurrencies. The mission will be to select and analyze the most promising tokens and cryptocurrencies in the same way and using the same framework we use in our two current funds: bottom up, fundamental analysis with a long-term view and a focus on the particularities of each business and security. A commitment to deep and serious research.

Our current investors, obviously, can rest assured that our two investment platforms, FCL Hedge, and FCL opportunities will remain in their current mandates with no distractions. FCL Hedge, focused on beating the Brazilian fixed income and FCL Opportunities, in exploring global stock opportunities focused on the BRIC countries. Nothing changes for our existing infrastructure and we are more passionate than ever and very encouraged by our recent performance and excited by the current investment opportunities being analyzed for our two funds.

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In the meantime, we will keep an eye on this fascinating crypto revolution. We know there will be false starts and skeptics. They are always necessary and beneficial. After participating in countless forums, debates and even visiting blockchain companies in Switzerland, it is undeniable, for example, the attraction that government money still causes and will certainly keep causing for a long time.

A typical internet post in a bitcoin forum in Brazil reads like "*I just made R$ 100 reais in bitcoin, doubling my money in a month! Can someone help? I need to know how to get back to convert this money and bring it to my bank account*".

In others words, the default, the base position, in the investor´s mind, is still government´s fiat currency. He profited from venturing out, now he wants to get back to realize his profit. And we will not even argue that he is not right. There are centuries of facts behind him.

Who knows? Maybe borders will keep becoming less important. Maybe we will live to see a world where people say "I just received my salary in governmental US dollars. Can someone help me? I need to know how to convert them to Ether ASAP!!"

Obviously, revolutions are messy, unpredictable and take time. And most of all, it will always be very hard to make money. Most investors lost everything in the internet boom, betting in the wrong companies or even getting the winners right but then paying too much for them at the height of the boom. We are under no illusions. Even if we are right, and this is a big if, making money out of this will still be extremely hard.

But the genie is out of the bottle. We don't know who Satoshi Nakamoto is. But if criminals want his money it is because, well, it is money. It became money. And a government can say it isn´t . It can say what it wants. But it is money because people think it is money. Money, like the universe, is a circle without end. A circle onto itself. And in the same magical way something becomes money, it may, in times of stress or war, in the very same circular logic, cease to be money. It has happened before in many parts of the world. From Brazilian cruzados to Zimbabwean dollars.

The circle is once again turning and becoming different. As financial investors, we dedicate our lives trying to understand companies, business models, and essentially, money. Well, right now the feeling we have, both fascinating and scary, is that we sit on the shore, looking to the horizon with an endless ocean before us, this ocean full of unknown facts. We feel like the brave portuguse navigators that embarked on a new world of unknown and eventually gave rise to the place we now live in. Back then, there was no more exciting time to be a navigator. Right now, there is no more exciting time to be an investor.

FCL Team

Sobre a FCL Capital

A FCL Capital é uma gestora de recursos sediada no Rio de Janeiro, cujo objetivo é maximizar o retorno de seus investidores. A FCL tem como nicho principal, mas não exclusivo, investimentos em empresas abertas, listadas em bolsa de valores (posições compradas e vendidas nos mercados acionários). Para saber mais sobre nosso trabalho, entre em contato conosco ou acesse nosso website: www.fclcapital.com.

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Auditoria

Custódia

Regulamentação

A presente instituição aderiu ao Código ANBIMA de Regulação e Melhores Práticas para os Fundos de Investimento.

Administração