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Bitcoin: everything you need to know to invest today



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Bitcoin: everything you need to know to invest today

A special report for Revolutionary Tech Investor readers,
By Sam Volkering, editor

Before we get into the guts of this recommendation, it's worth noting that while *Revolutionary Tech Investor* is a stock recommendation service, this is by no means a stock. In fact there's even debate about whether it's an investment.

But for simplicity sake, I'm going to refer to it as an investment.

Let me get right to the point. Your latest investment recommendation is to buy bitcoin.

Now, typically, I don't reveal the recommendation so early on in an issue or special report. But I think it's important that you understand from the outset what I'm talking about.

You see, the idea of bitcoin might be completely foreign to you. Or perhaps you've heard about it before, and you simply have no idea how to get into it. Or maybe you're already proficient in bitcoin, its history, its potential... you might even own some.

But I'm going on the assumption that many readers simply don't know much about bitcoin, let alone how to get some, store them, and maybe even spend and sell them.

That's why this special report is very different from any other I've done before. It's advice on bitcoin. It's a look into its past... and a horrible error of judgement on my part. And it's about the future potential I think bitcoin has, and how you should view and treat this alternative financial opportunity.

I'll try to keep it simple, but some parts might get a little challenging. Which is why I also recommend the resource bitcoin.org to help you on your journey into the digital alternative financial system.

Let's get stuck in. I'll break it down for you step by step...

The history of bitcoin

In 2009, a white paper was published to a cryptography mailing list. The title of the white paper was, "Bitcoin: A Peer-to-Peer Electronic Cash System". Its author was the mysterious and elusive Satoshi Nakamoto.

The core premise of this electronic cash system was an online payments system that would "allow online payments to be sent directly from one party to another without

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going through a financial institution.”

That sentence is incredibly important to everything else I’m about to explain and tell you about in this special stock alert. As you continue to read on, I want you to continuously keep this in the back of your mind – bitcoin, in its first instance, is to be a payments system that avoids going through financial institutions.

It is the anti-financial system. It’s an alternative financial system to the one we currently use to buy and sell things, transfer money around the world, and to build our financial wealth.

The white paper by Nakamoto is a must-read for anyone thinking about involving themselves in bitcoin. I implore you to read it after you’ve read this issue, and before you go and get some bitcoin for yourself.

It’s only eight pages long (plus references), and is actually quite simple to read and understand. This is the foundation – the beginning of bitcoin. And it’s where everything took off.

Bitcoin is a digital currency. And, as Nakamoto explains in the white paper, it is an electronic coin, by definition, which is just a “chain of digital signatures.”

For example, I transfer you one bitcoin; that creates a digital signature – it’s then secured with cryptography known as a “hash”. This new digital signature however is added to a whole long line of digital signatures from all previous bitcoin movements that have ever taken place.

Think about it like a giant notebook that holds every record of every transaction ever made. When a new transaction is added to the notebook, the wider community of “nodes” (which I’ll get to shortly) verifies this new transaction and it’s confirmed.

In approving the latest transaction, it’s assumed instantly that every record that comes before it is also approved (which it is). Hence this distributed ledger – known as the blockchain – is one giant automated verification system that proves and confirms every single bitcoin transaction that has and will ever take place.

This verification process known as “confirmation” underpins the entire bitcoin system.

It also then enables transactions like for the payment of goods and services.

It also prevents a situation of what’s known as “double spend”. Let me explain that a little more. It means that, if I transfer you a bitcoin for a can of coke, while you will receive it, there’s no way you can verify that I haven’t gone and spent it with someone else for another can of coke.

If I double spend, I use the one bitcoin (or division of bitcoin) to buy multiple goods. It’s essentially a form of fraud.

In a traditional financial system, a central banking authority eradicates this problem.

Or a mint by issuing physical tender. But bitcoin doesn't operate with a centralised authority; its purpose is to avoid that outcome. And it's certainly not physical tender.

Bitcoin therefore uses a timestamp server to widely publish the transactions that occur on the blockchain. Each transaction is also secured by a complex algorithm the SHA-256 "hash" which the system uses to verify and confirm the transaction. This goes on and on; each time, a new transaction generates a new hash and includes this chain of transactions, on the blockchain.

Anyone operating a bitcoin wallet, or buying, spending or mining bitcoin is part of this decentralised network and is a "node" (users on the blockchain system). This decentralised nature and the underpinning technology of blockchain and the confirmation process is also called "proof-of-work" and brings reliability and stability to the system.

Now while this is all getting pretty complex, it's important at this point to know that the technology works. It is proving to be increasingly reliable and now quite possibly a smart place to consider converting some of your fiat money into.

Mines and mining

In order to ensure there are enough nodes on the system, there is incentive to operate to support the network. There is a reward given to "miners" of bitcoin, which, when the system was in its infancy, was 50 bitcoin per each block they could "mine".

In order to actually mine a block, you need a computer to solve an algorithm. If you're first to achieve it, your reward is the block. This is an overly simplified explanation, but it's important to know that solving this algorithm isn't easy. You can only do it with a powerful computer.

In the early days of bitcoin, if you had a high-spec computer with a powerful graphics processing unit (GPU), or even better a *couple* of powerful GPUs, you could efficiently and effectively mine bitcoin and they would come flooding in. But this was when it was relatively unknown and there weren't an abundance of miners in existence.

And around 2010 the chance of mining a block of bitcoin (50 coins) was actually pretty good. But you still needed a high level of technical proficiency to get things up and running.

There were, and still are, miners that solely aim to make money mining bitcoin. But today there are millions more miners than in 2010. And the more miners there are with increasingly powerful computers, the harder it becomes to mine a block.

Furthermore, as miners mine more blocks, there are fewer left to mine. The design of the bitcoin system ensures that only a finite number of coins will ever be in circulation.

The total number of mineable coins is 21 million. Right now, 16 million are in circulation. And with every 210,000 blocks the mining reward halves.

It originally was a reward of 50 coins. After the first 210,000 blocks (10.5 million coins), the reward dropped to 25 coins. After the next 210,000 blocks (5.25 million), the reward dropped to 12 coins. The reward is currently 12 coins and, after another 210,000, the reward will be six, then three, and so on until all coins are in circulation.

According to Bitcoin Wiki estimations, all bitcoin will be in circulation by 7 May 2140. So there's a while to go still.

Anyhow, once a miner is mining bitcoin, they also become nodes, verifying transactions. As I mention earlier, it's all done through computers and the use of GPUs, as they were able to process all the information much faster than typical central processing units (CPUs).

The digital gold rush

Since inception, bitcoin has also been convertible into fiat currency, in particular US dollars. In early 2010, a bitcoin was “worth” around three cents – a block would be worth around US\$150.

At this point, in late 2010, I first began to get curious about this “bitcoin thing”. I couldn't quite get my head around the fact that you could use a computer at home to mine this digital currency, and that it was actually worth money. Surely that wasn't possible. You could literally make money out of thin air.

I continued to watch it, trying to figure out how to set up my own “mining rig” to mine bitcoin. I was pretty technologically proficient. But building a computer with the necessary mining GPUs, and then understanding the programming language to mine bitcoin, all just became too hard.

Around May 2011, I sat down with a work colleague at the time. I introduced him to bitcoin. We considered putting in \$1,500 each and buying a really high-spec computer to have a crack at it. But then, after doing the calculations on cost, energy expenditure and time required to achieve one block, it didn't make sense economically. More miners were coming online, and the probability of mining a block was reducing all the time.

We also thought about just buying \$1,500 worth of bitcoin, but, even in 2011, it just seemed too hard. Also, by this stage, bitcoin had spiked to a price of \$10. This was from just cents months earlier. We were convinced this was a bubble, akin to the Dutch Tulip Mania. We decided to pass and save our money for stocks instead.

We were vindicated as bitcoin rose north of \$20 by June, and then tumbled back to around \$2 by November. While we were confident about the long-term future of bitcoin as a unit of currency, we were still too green in our experience with it to really see its potential and capitalise on it.

Could have, would have, should have!

1,500 bitcoin would be nice today. But in all errors of judgement, or in this case missed

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opportunities, there is a lesson to be learnt. In my case, it was a failure to understand deeper what this new currency was, and how it could impact the world.

One bitcoin could be worth US\$50,000

Even by mid-2011 it was already becoming harder to mine bitcoin. People were starting to use bitcoin-dedicated rigs (called ASICs) with eight, 12, or 24 GPUs. In short, it was an arms race for miners – the more GPU power you had, the better at mining you were.

Through 2011, bitcoin, and bitcoin mining, was like a gold rush. There were even a few businesses that began accepting payments in bitcoin.

Infamously, in 2010, a computer programmer, Laszlo Hanyecz, paid a fellow bitcoin user 10,000 bitcoin for two Papa Johns pizzas. At the time, that was about \$25 worth of bitcoin. But, according to today's prices, those two pizzas cost Hanyecz US\$7.5 million.

But Hanyecz, much like most of the bitcoin community back then, never expected the price in fiat currency of bitcoin to go parabolic. When it went from 1 cent to 10 cents, it was crazy. When it went to US\$1, it was insane. \$10 and then \$20 was just hysteria.

But that was only the beginning.

In late 2013, when bitcoin hit an equivalent price of US\$1,242, the world stood up and took notice. The same day bitcoin hit US\$1,242, the spot price for physical gold was US\$1,240. This digital currency was worth more than gold. For many, it was digital gold.

Early in 2014, I was a guest on *The Rick Amato Show* on the One America News Network TV station. Amato was interviewing me as its technology expert. Little did I know that it was also bringing in (at the time a nominee for governor of California and the mayor of Laguna Hills) Andrew Blount.

I was explaining the long-term benefits of bitcoin as an alternative monetary system, used to pay for a whole range of goods and services in time.

We had a bit of a debate as to the legitimacy of bitcoin. Blount likened bitcoin to bubble gum wrappers at the time. That was all they were worth in his eyes. He forecast that, by the end of 2014, bitcoin wouldn't exist.

As you'd expect, I disagreed with him. My position was, and still is, that bitcoin will be around far longer than either he or I will be alive.

In fact, I don't envisage a day in the future when there isn't bitcoin. Considering all coins won't even be in circulation until 2140, that's a good indication of its longevity.

Bitcoin is, and always has been, a unit of exchange over the internet. It is, in its purest form, anti-government, and anti-central bank. It provides the perfect basis of an alternative financial system.

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I'm also of the view that the fiat currency value of bitcoin is unimportant for the future. It matters little long term what bitcoin is worth in USD, CNY, AUD, GBP or whatever currency you choose. One day, you will be able to freely spend bitcoin as you do the currency you're paid your wages in.

However, there is a transitional period to this day where the fiat value is important, giving us perspective as to the purchasing power of bitcoin.

For example, while the current price of bitcoin is US\$747 long term, *I can see it being the equivalent of US\$50,000.*

The likelihood of that outcome is enhanced if we continue to see more severe, ongoing financial turmoil in economies around the world.

As I said before, it's the perfect alternative payment system. Imagine what could happen if there is a collapse of the current global financial system. If there is another debt crisis, or more "Trump shock" in countries like France, Germany, Austria and Italy. When that happens, in my view bitcoin stands to gather strength and momentum.

Another debt crisis on a scale even bigger than Cyprus or Greece could send bitcoin's price soaring again. Complete financial system collapse would likely see it peak and rise as hard as it did in 2013.

But my advice to you here isn't to just buy bitcoin with the aim of selling it back into fiat currency. While you can do that if you choose, my recommendation is to hold it long term. One day you will be able to use it anywhere, and your purchasing power should then be substantially higher than it is today.

Even if there isn't a global financial collapse, I still envisage more and more countries turning to bitcoin, and the blockchain technology it's founded on, to manage global and local payments and exchanges for goods and services.

I could go on and on, but the point is that bitcoin today has come off the hype and hysteria of 2013. It bottomed, it stabilised, and it's seeing more recognition and acceptance globally as a viable system. It's now achieved a degree of stability in price.

That puts it in a strong position for investment. But again, the aim is to invest with the view to use it to exchange in the future for far more than what you can get today.

The idea is not to transfer it back to fiat currency. Of course, the choice is yours.

The important questions that come next are: how do you get some? How do you store it? How do you protect it? And if you want to use it, how? Or if you do want to sell it back to fiat currency, how?

How to get and store bitcoin

First off, let's remember that this is a digital currency. It's not backed by a bank, and it's

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not government protected. It is still inherently risky, and there's even the risk that you'll simply lose it.

I'll explain what to do next, but you must make sure you're aware that, if you lose your digital wallet, send bitcoin to a wrong address, or are physically robbed and have them stolen, you may never recover them. You could lose every cent you put into it. That's high risk, but I think, if you're careful and do things properly, you could minimise those risks.

I also suggest that you start off slowly. Set things up and buy a little bit of bitcoin. Then get some more as you become more comfortable with the process. Maybe even hold them across multiple wallets to keep them segregated and safe.

By now you may be asking, what is a wallet?

This is the first step to getting bitcoin. You need a "wallet". A bitcoin wallet is a digital wallet where you store bitcoin. Simple.

The best resource to get a wallet is on the bitcoin.org website. In fact, you should use bitcoin.org as a resource regularly to make sure you're comfortable with everything.

If you go to this link bitcoin.org/en/choose-your-wallet, you can find a wallet to store your bitcoin.

It has a number of choices. Most of them perform the same function. They can receive, store and send bitcoin.

Once you've installed a wallet, open it up. You should also set up some security measures for your wallet: a very difficult password with letters, numbers, capitals, symbols and so on.

With a wallet set up, you're ready to receive some bitcoin. You will note in your wallet that you have a receiving address. This is made up of a bunch of randomly generated numbers and letters. It might look something like: 141ZdQfF6q55ySTC1HXMJLWNoRY4WEbr7qx.

The reason for the complexity is because bitcoin also functions anonymously. So while your transaction might be easily found on the blockchain, it would only appear as above – no name, no address, and no personally-identifiable information.

This is another exciting feature of bitcoin – it's extremely difficult to track transactions to any one individual. This, as you can imagine, causes its fair share of headaches for governments and regulators. But there's nothing illegal about owning bitcoin. And most government regulators and taxation departments still barely have any idea on how to treat it.

At this point, I'll add that this, too, is a risk. Regulation and government interference is a risk for bitcoin. The ruling hand of government doesn't like what it doesn't understand, doesn't control, and can't tax. They inherently don't like bitcoin. But again, that's what makes it such a great alternative payment system – it's decentralised; it's anonymous; it's

borderless; and it doesn't need the input and interference of local banks, central banks or government.

Now back to your digital wallet.

You know your receiving address. Time to buy some bitcoin. Now, at this point, you will be required to pay fiat money in order to procure bitcoin.

I've used Bittylicious in the UK to buy bitcoin before, and it's a very straightforward way of getting bitcoin. All you really need is a bank account, an email address and a full (real) name. You will also need to provide an identity document to verify your account.

Once you're registered with it, you simply enter how many bitcoin you want, or you enter how much in British pounds you want to spend. Note: sometimes the site has a limit of how many bitcoin you can buy at any one time.

But once you determine how much you want, you continue on and then enter the details of your wallet. *This is very important to get right.* You need to make sure you enter your wallet address *perfectly!* If you get it wrong, and if your bitcoin ends up going to someone else's wallet because you put in your wallet address wrong, you're the only one to blame – and you'll probably never see the bitcoin, or your money, again.

This is another reason why I say that you should start with a small amount to get used to the process.

You will need to complete the funds transfer via one of the prescribed methods (it's very straightforward and stepped out for you) complete the transaction and, after a bit of time, your bitcoin will appear in your wallet. You should also make sure that you periodically open your wallet to ensure that it downloads the up-to-date version of the blockchain to enable you to move your bitcoin around if you want to.

So that's it. It's a pretty straightforward process these days. If only it was this easy back in 2011...

Now, you can set up any number of bitcoin wallets. They're free to set up, and you can do it on your computer, tablet, smartphone... any digital device, really.

Once you've got your bitcoin in your wallet, the next most important thing you need to do is protect them.

Securing your bitcoin

I absolutely recommend that you set up your wallet on your own device. Don't use a wallet that an online company provides for you, which is stored on its servers. Keep it on your computer or server, as you simply can't always trust the security some online providers give you.

Another smart option is to back up your wallet. Don't just back it up on your computer,

though. You need to plan for an event where your computer might crash, be stolen, or simply die. If you have your wallet backed up in another location, such as a CD, USB drive or external hard drive, you can protect it in the event of your computer going kaput.

You should also encrypt your backup. Encrypting it will make it extremely hard for attackers to steal your bitcoin. The encryption will also require a complex password to decrypt at some point, so you must also make sure you don't lose or forget your encryption password!

Every time you get more bitcoin, transfer it or even create a new wallet (you can make multiple wallets within the one wallet), you should back up your wallet.

However, by far and away the best form of protection for your bitcoin is “cold storage”. This is like putting gold in a bank vault. This means putting your bitcoin on a device that isn't connected to the internet, or any network for that matter. Devices like USBs or data storage drives are perfect for this.

Worth noting is that, as new forms of storage arrive to market, you should update and backup your wallet onto the new media. For example, no one uses VHS anymore, and barely anyone uses CDs. We now have flash drives (USB drives). If newer, better storage technology comes out, back up and update your wallet to that (assuming it's affordable, and your existing storage isn't out of date or redundant).

You can also purchase a “hardware wallet”.

These are specific devices that keep your private keys (needed to receive and send bitcoin) completely offline. An example of this is KeepKey, which works with MultiBit and is readily available to purchase.

This might sound a bit scary, but if you take the time to do it properly, you can help minimise your risk of losing your bitcoin. Of course, nothing is ever 100% safe – not stocks, bonds, or even your “traditional” cash in the bank. But, with the right safety measures in place, you can do your best to mitigate these risks. Again, I strongly advise using the resources you can find here: bitcoin.org/en/secure-your-wallet/.

How to spend or sell your bitcoin

Finally, there's the option of selling or using your bitcoin.

I don't recommend spending them just yet. The idea here is that, long term, the purchasing power of bitcoin will be far stronger than it is today. My price target longer term is potentially as high as US\$50,000. But even then you wouldn't exchange it back into dollars. By that stage, I envisage plenty of merchants will accept bitcoin as a payment for goods and services.

But if you do want to spend them in the short term, you simply need to find a merchant that accepts bitcoin. Right now, there aren't a heap of different places. In my view, that's going to change longer term as acceptance of this digital currency increases. But if you

find somewhere you want to spend them, you'll simply be required to transfer your bitcoin from your wallet to the merchant on checkout.

Also, if you want to sell your bitcoin, you'll need to transfer them from your wallet to a seller, or to an exchange, to process your sale transaction.

In both instances you'll need to transfer your bitcoin.

Your wallet has a receiving address. It will also have an option to send bitcoin. Typically, there will be a blank address field. This is where you need to put the *exact* address where you want to send your bitcoin.

If you're paying a merchant, it'll provide you with its bitcoin wallet address to send the bitcoin. That's what you put into your send field. Again, make sure you put it in exactly!

Same goes for selling bitcoin. Taking Bittylicious as an example again, you simply enter the address it provides you with in your send field in your wallet.

Sending bitcoin might be a little scary at first. But, remember, the blockchain system verifies transactions. So, *as long as you get the address correct*, you can be sure that it reaches the end point as expected.

In selling, often you will need to provide your bank details as well to receive your fiat currency funds. It's a straightforward and easy process, if that's what you decide to do.

Buying instructions

My advice today isn't to buy bitcoin to sell back into fiat currency. The aim is that bitcoin will continue to appreciate longer term – and, in doing so, be worth more and more. But not worth more in fiat currency; worth more in terms of purchasing power.

With more merchants likely to accept bitcoin in the future, you'll be able to use your bitcoin, much in the same way Hanyecz used his – to buy some Papa Johns pizzas.

If Laszlo held onto his, he might have been able to buy a house, a boat, a car, or several of each. That's the aim for you – to be able to use bitcoin in the future to buy something extravagant, to provide you with the ability to secure your wealth in the digital world, to pass on to the next generation, and, generally, to do with it whatever you please.

Remember the core premise of bitcoin in Nakamoto's white paper?

“Online payments to be sent directly from one party to another without going through a financial institution.”

It's an anti-financial system. It's revolutionary technology that has the potential to completely change how we think about and manage our finances in the 21st century. And, longer term, I think it will have incredibly strong purchasing power.

Which is why I recommend you buy some bitcoin now, with the view to hold it long term to eventually use in transactions. In the event that its use isn't as widespread as I anticipate, then there's always the option to sell it back into fiat currency again, with the aim of making a substantial profit.

I will remind you one more time that this is not your typical financial investment. I'm advising you to buy bitcoin on the premise of its potential as a legitimate financial unit of exchange in the digital world long term.

Be aware, it has no financial backing. It's not regulated. There may be taxation consequences in different jurisdictions. These are all aspects that will apply differently to each individual. You should take the time to be sure of any consequences applicable to you.

It's also risky, as the fiat value of bitcoin is volatile. As I've said in the last five years, it's gone from a few cents to over AU\$1,200 and back again. It's seeing some relative stability now, but that might not last. And you could be at risk of losing it all if the price crashes dramatically in a short space of time and you're unable to sell your bitcoin holdings.

And then, if you lose your wallet, don't back it up, have it stolen, or suffer a cyber-attack, you could also lose all your bitcoin.

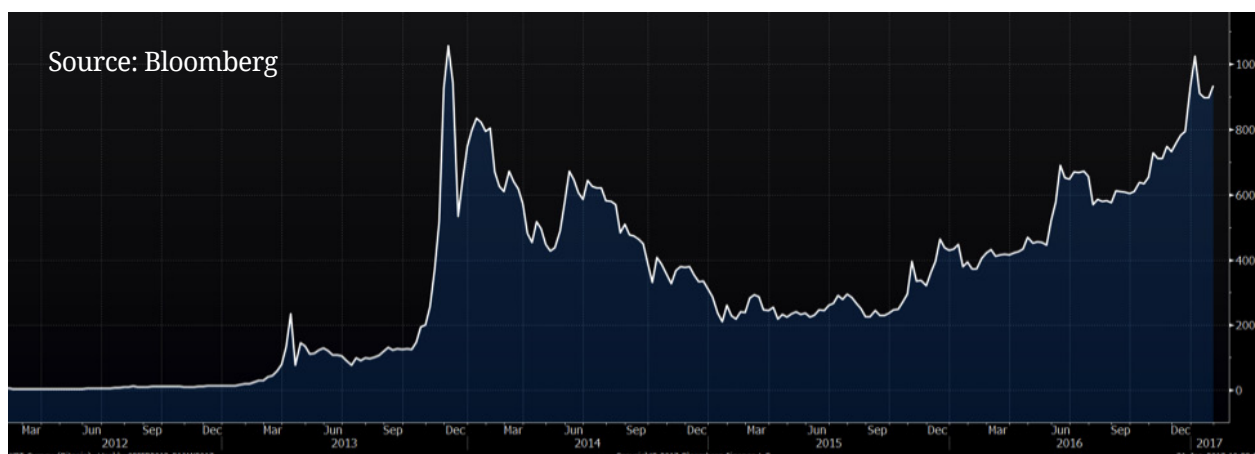
Yes, this has extreme potential in my view. But it also carries its fair share of risk.

But if you're prepared to accept that, and are prepared to enter the alternative financial system, then I recommend you buy some bitcoin.

Action to take: familiarise yourself with bitcoin further. Set up a bitcoin wallet. Buy some bitcoin and transfer into your wallet at the available price at the time. Bitcoin currently trades at £722.91 although the price can vary between bitcoin exchanges and sellers and the price constantly fluctuates). Secure and store your wallet safely. Keep your bitcoin long term for its potential future purchasing power.

Bitcoin (XBT BGN Currency)

5 Year Performance:



Data correct as of 31.01.2017