



INSIGHTS FROM  
CFA SOCIETY SINGAPORE

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## Does crypto deserve a place in your investment portfolio?

It is prudent to size your allocation to crypto according to your risk appetite and unique circumstances

IF YOU asked a passer-by "what is bitcoin" back in 2017, you would probably have elicited blank stares. Fast forward a mere five years, cryptocurrency or crypto-related news has reached mainstream media, with popular coins such as Bitcoin and Ethereum reaching a recent peak price of around S\$80,000 and S\$6,000 a coin respectively, making several early adopters tremendously wealthy in a short span of time.

However, it hasn't all been a smooth ride up. As recently as early this month, another crypto, Luna, suffered a 99 per cent decline in price from some US\$85 a coin to under 1 cent a coin, over a couple of days.

So, what is the fuss about crypto, and should retail investors have an allocation to it? Considering that prominent investors such as Warren Buffett have been very vocal against it, one might take comfort in taking a similar stance. However, a high-profile CEO, Jamie Dimon of JPMorgan, called bitcoin a fraud only to change his stance and embrace it shortly after. Hence, we endeavor

to shed some light on crypto so that investors can make a more informed decision about whether to include cryptocurrencies in their investment portfolio.

### What is crypto?

Crypto is a digital or virtual currency that uses blockchain technology. A blockchain is a transparent ledger where crypto transactions (such as A sending 0.5 bitcoins to B's wallet) are recorded. When transactions are made between crypto wallets with addresses that are 26-35 alphanumeric characters long, this information is aggregated together as a block of transactions, which are sent to miners (a mini server in the network) to authenticate. Each block has a finite size limit (in the case of bitcoin, it is 1 MB and in the case of Ethereum, it's 15-30 million gas). Together, the blocks of transaction data get aggregated into a chain of blocks.

Hence, a blockchain is immutable (permanent, indelible, unalterable), and secure (not sub-

ject to fraud); and crypto has the properties of currencies (store of value, unit of account, medium of exchange).

PHOTO: REUTERS

### Investing in crypto

Historically, only miners are awarded crypto in exchange for validating transactions as part of the blockchain protocol. For crypto like bitcoin that use the proof-of-work consensus algorithm, miners are competing against each other to solve a complex mathematical problem that is computationally intense while, at the same time, easy for other miners/nodes to verify. Miners do this to receive a reward for being the first to solve the complex mathematical problem (only the first miner gets the reward), and every miner would acknowledge the winning miner by synchronising the records with theirs, so that they will be in the running to receive the reward for solving the problem present in the next block of transactions.

Today, under a proof-of-stake consensus algorithm used by crypto such as Ethereum, owners of the coin must stake their coins as collateral to become a validator node, which plays a similar role as miners in the proof-of-work consensus algorithm. Validator nodes are randomly chosen to create transaction data in the block, or validate proposed blocks through a process known as attestation. In exchange for that, they receive a reward for their efforts. Validator nodes lose a portion of their stake or get expelled from the network if they fail to validate a transaction or act in concert to collude.

Alternatively, the other way to obtain crypto is from the secondary market by buying from an existing coin owner or from an exchange.

### Where can I buy crypto?

The most direct way to buy crypto is via a cryptocurrency exchange. The largest listed one in the US today is Coinbase with a market cap of more than US\$14 billion. In Singapore, one MAS-regulated crypto exchange is Coinhako.

After creating your account and completing the know-your-customer assessment, you have to fund your account with fiat currency such as USD and SGD. The most straightforward way to do so is via a credit card (card transaction fees apply). Alternatively, you can also invest via a bank transfer or alternative payment methods such as GrabPay. Once your account is funded, you can

## THE BUSINESS TIMES

Saturday, May 28, 2022

buy crypto at prevailing exchange rates shown on the cryptocurrency exchange.

### The lure of crypto

Crypto presents an investment opportunity where you can get outsized investment returns in the form of capital gains. From 2011 to 2021, the average annual return for bitcoin was 230 per cent, 10 times higher than the NASDAQ100, a stock market index comprising the 100 largest non-financial companies on the NASDAQ, which was the second-best performing asset class of the decade worldwide.

In addition, decentralised finance technology has created an income-like mode of receiving investment returns via staking. In exchange for lending out your crypto to an exchange or a protocol as part of its liquidity pool, you receive rewards in the form of more of these tokens in the future as an "annual percentage yield". Consider this as a mechanism like a fixed deposit, or a reward sharing means in the proof-of-stake consensus algorithm.

Because there is a finite supply of crypto programmed in their respective protocols, if demand for crypto continues to outpace supply, there will be pressure for the price of crypto to increase in the future.

### What are the risks?

In 2018, the first "crypto winter" saw Bitcoin plunge by more than 80 per cent in a span of months. As recently as this year, crypto experienced price declines of more than 30 per cent, with Luna and TerraUSD being the two most prominent cryptos responsible for the recent downturn.

Both Luna and TerraUSD are crypto assets created by Terraform Labs. TerraUSD is an algorithmic stablecoin that maintained a peg value of US\$1 per TerraUSD; the peg was achieved by creating new or removing existing Luna crypto in circulation, and maintaining other crypto assets as collateral. TerraUSD was part of the Anchor Protocol, a savings scheme yielding close to 20 per cent a year. Before the meltdown, investors thought that this was quite an arbitrage opportunity. You could get close to 20 per cent annual interest rates on a stablecoin whose value was pegged to

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the USD fiat currency, whereas you would earn only 1-2 per cent annual interest on USD deposits.

Some investors even borrowed USD from the bank to invest in TerraUSD to earn the "spread". However, these investors were in for a rude shock when TerraUSD broke the peg in early May. There was an overwhelming selling pressure on TerraUSD due to market volatility and to maintain the 1USD to 1TerraUSD peg, Terraform Labs sold off the existing collateral, to the extent that it exhausted the entire liquidity pool, leading to a devaluation of TerraUSD to below 1USD per TerraUSD. That triggered a crisis of confidence and a run-on-the-bank on the TerraUSD stablecoin, and resulted in a more than 38-fold new Luna crypto "minted". The Luna tokens in circulation increased from 170 billion on May 13 to 6.5 trillion on May 14. Correspondingly, the price of Luna crypto crashed to under 1 cent per coin over a span of several days.

Crypto presents legal risks. Although it is possible to identify wallet balances on CoinTracker.io, the identity of the owner of the wallet is concealed. This makes crypto an attractive asset to individuals and enterprises engaged in illicit operations as they are able to move large sums of money in crypto unobtrusively. As a result, several governments around the world, most recently the Reserve Bank of India in February 2022, have banned the purchase of crypto with fiat. Although crypto may be on the cusp of widespread adoption, at this point of time it is also equally likely that you might be left holding an asset that will be extremely difficult to exchange back into fiat currency.

Finally, there are significant operations risk in

crypto exchanges. Although crypto follows a blockchain protocol and cannot be gamed, crypto exchanges and new coins issuances are controlled by individuals, making it an area very susceptible to fraudulent activities and hacks.

In 2014, Tokyo-based Mt Gox, a cryptocurrency exchange, lost 850,000 bitcoins in a hack and the customers who held their crypto on the exchange have no chance of recovering them. It is also common practice for influencers to hype up the potential returns of a new coin and its utility in a bid to lure coin owners to invest before making off with the funds and not delivering on commitments (a process known as a rugpull). Because the blockchain is immutable, once you complete the transaction of purchasing a new coin with bitcoin or Ethereum, you cannot undo the transaction, unlike in traditional financial institutions where assets can be frozen and recovered.

### Conclusion

As tantalising as it is to be on the cusp of innovation and obtain supposedly superior investment returns, it is prudent to size your allocation to crypto according to your risk appetite and circumstances should you choose to include it in your portfolio. Due to its immense volatility, inherent risks and status as a yet-to-be mainstream asset class, a low, single-digit allocation might be appropriate instead of investing a significant portion of your life savings if you are upbeat and still maintain a high conviction in crypto. To minimise the potential risks mentioned, do take note to deal with a reputable counterparty when exchanging fiat to crypto, minimise the use of leverage, and do your own research before investing in new coins.

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