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# When the Peg Breaks

## Depegging Events in Fiat and Crypto

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# Research and Insights

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# Contents

# Executive Summary

- Stablecoin depegging has recently grabbed headlines in the media, with Terra Stablecoin **UST** spectacularly losing its peg in mid-May 2022.
- Depegging events are common to both fiat and crypto. The loss of the Thai Baht's USD peg in 1997 is the classic example of how this can occur.
- The Luna Foundation Guard's (LFG) average ratio of reserves to TVL is estimated to have been **0.12** leading up to the UST depegging. This may be compared to similar estimates of reserves to GDP for Thailand (**0.18**) and Indonesia (**0.07**) at the time of the 1997 financial crisis.
- At the time of writing, UST is still trading far below its $1 peg, just under **US$0.07.** Events are still unfolding at the time of writing, and the true effects of the incident may be yet to come.
- The LFG depleted its sizable Bitcoin reserves in an unsuccessful effort to defend the peg. Its BTC reserves appear to have dropped from **80,394 BTC** on 7 May 2022 to just **313 BTC** on 16 May.
- Neutrino's USDN has been another casualty of market turmoil, dropping its peg in both April and May of 2022, first as a result of market rumours and allegations about its structure and backing, and then as a result of contagion from the UST collapse.
- Tether's USDT lost its peg briefly on more than one occasion. During the market turmoil of 2018, it rose to **$1.32** in July, and dipped to **$0.51** in October. However, it has so far always regained its peg, which is a positive sign for the overall viability of the concept.
- Investors are encouraged overall to make sure they are aware of the risks involved with stablecoins, and not assume that all stablecoins are equal or carry an equal risk profile.
- Ultimately, the collapse of UST should be taken as a teachable moment for the industry.

# 1. Introduction

## 1.1 Stablecoins in the Present Market

**At the time of writing, the cryptocurrency community is facing uncertain territory in the aftermath of the depegging of a major stablecoin, namely Terra's UST.** Originally, we had intended this article to focus on the comparatively benign stablecoin depegging events that have occurred in the past, such as the event that occurred recently on USDN. However, the sudden UST depeg has made this topic all the more relevant and important, so we endeavour to give some context on events that are currently unfolding.

Many seemed surprised to learn that a stablecoin peg break could happen at all — there seemed to be an assumption in some sections of the crypto community that pegging one currency to another was a simple matter of hardcoding the value from an oracle of some kind, and therefore reasonably risk-free. As the present crisis is revealing, currency pegs are not that simple. However, neither are they unique to the cryptocurrency world, with fiat currencies experiencing peg breaks of their own in the past.

**In this article, we shed some light on currency pegs in order to give the community some clarity on how they work, and how they can go wrong under adverse market conditions.** To illustrate this more clearly, we touch on a famous example of a depegging event in the fiat currency world, namely the depegging of the Thai Baht during the 1997 Asian Financial Crisis, before showing how the same thing can occur in the crypto world. We hope that this will put the events of recent days and weeks into perspective, and shed some light on the risks involved with currency pegs.

## 1.2 How Currency Pegs Work

**Currency pegs refer to a situation in which a government directs its monetary authority (e.g., a central bank) to fix its exchange rate to a particular currency or basket of assets.** A good example of this is the Hong Kong Dollar's (HKD) currency peg with the U.S. Dollar (USD) that has existed since 1983, in which the HKD is pegged to the USD at a rate of HK$7.75-$7.85 per US $1. Essentially, this means that the rate of exchange between two currencies remains the same, and the monetary authority of the pegging currency adjusts its monetary policy in order to ensure this arrangement remains in place.

To maintain a currency peg, the central bank of the pegging currency needs to adjust the value of its currency so that it falls within a given range of the other currency (keeping it within a given range, such as the HKD example above, is easier than attempting to maintain a precise peg, as currency values may fluctuate somewhat). This is achieved by buying or selling the local currency (depending on which direction is needed), with the money for buying being raised through selling treasury bonds. For example, in May 2022 the Hong Kong Monetary Authority bought HK$1.586B worth of HKD in order to defend the USD peg in the face of pressure from capital outflow resulting from a rise in U.S. interest rates. The amount of capital reserves a country has is crucial for determining whether or not it will be able to defend a peg.

**Governments might desire a currency peg for a number of reasons.** For example, it greatly simplifies trade with the country to whose currency the peg is created, as foreign exchange risk no longer needs to be hedged against. On the other hand, it also means that the government is essentially exporting its monetary policy, and must suffer the same rates of inflation, for example, as the other country.

**However, there are also reasons for which a country might decide to end a peg.** For example, while China viewed a fixed currency with the USD to be advantageous during the 2008 U.S. financial crisis, in 2010 it ended the arrangement due to China's increasing economic strength making it unnecessary. In the case of Hong Kong, the peg is thought by some to be vulnerable due to shifts in U.S. foreign policy and other geopolitical concerns. However, the counter to this view is that the HK government has large foreign exchange reserves with which to maintain the peg, as stated in January by the Hong Kong Monetary Authority to be more than six times the amount of HKD in circulation.

In the crypto world, there has been an effort, with mixed success, to automate the fiat central bank process described above in the form of algorithmic stablecoins (in which the peg is maintained through an algorithm that adjusts the price and backing automatically in response to market conditions). A notable experiment in this field came with the various OlympusDAO forks that appeared in late 2021. Unfortunately, these currencies largely failed to maintain any kind of stability; at the time of writing, OlympusDAO (the original project) has been on a downtrend since its peak in October 2021.

Other projects, such as Tether, operate by allowing each USDT token to be converted to US$1, backed by Tether's reserves which so far has been reasonably successful at keeping the peg intact (with certain exceptions that we cover later in this article). The transparency of USD reserves has at times been questioned by some, leading Tether to publish transparency reports detailing their reserves.

# 2. The 1997 Asian Financial Crisis

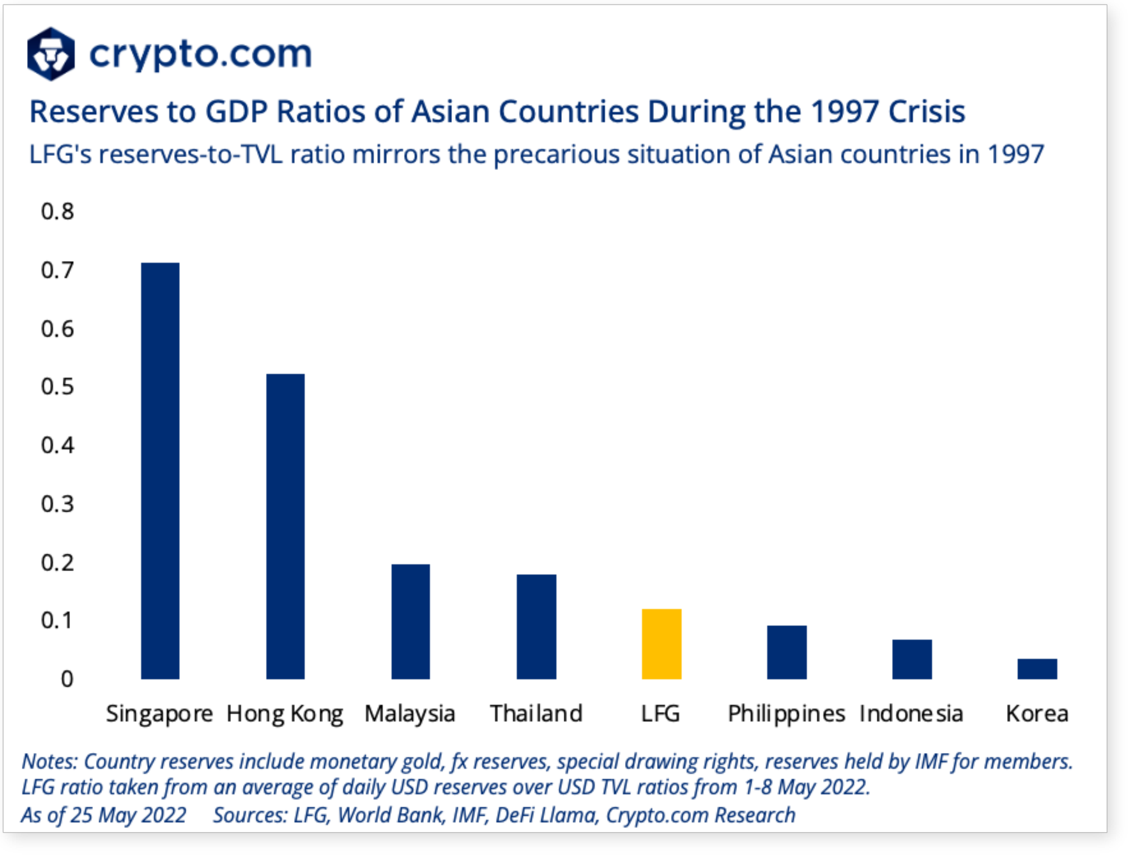
## 2.1 The Thai Baht Depegging

**1997 saw one of the more famous depegging events of the fiat currency world.** Goldman Sachs published a short synopsis of the events surrounding this period, which we attempt to summarise here for context. In short, Thailand and other Southeast Asian countries experienced economic booms in the early 1990s. However when a sudden capital flight occurred, the markets were found to be in a vulnerable position.

**At the time of the 1997 Asian Financial Crisis, the Baht was pegged to the USD at a rate of ฿25 to $1.** After a significant economic boom that saw large numbers of properties built during a housing bubble (only to be left empty in the aftermath of the crisis), the impact of market forces and a slowing Thai economy left the Baht struggling to maintain the peg. Eventually, it was allowed to float openly on the market by the Central Bank of Thailand.


This event resulted in significant speculation on other Southeast Asian currencies, with the Malaysian Ringgit and Philippine Peso also experiencing depreciation against the dollar. The situation was eventually resolved through agreements with the IMF, in which (for example) the Thai government agreed to guarantee the liabilities of commercial banks.

One area in which this differs from stablecoins is that the Baht was tied to the USD at a fixed exchange rate in order to facilitate trade and other economic activities; whereas, stablecoins are typically tied to the USD in order to *simulate* USD exposure in the crypto market. Those new to crypto may not remember the prior situation, where locking in a stable fiat value for crypto involved selling it for actual fiat on an exchange, which essentially precluded the possibility of a decentralised exchange using stablecoins. It also meant that the solution to the Baht crisis suggested in 1997 by the Federal Reserve Bank of San Francisco (namely that the currency should have been let to appreciate earlier) would not apply, as the entire value of USDT or USDC depends on their being exchangeable for $1. It's also worth bearing in mind that the Central Bank of Thailand *decided* to float the Baht; whereas, LFG did not have decision-making power for UST moving off its peg (beyond attempting to prevent this with reserves). Consequently, while we can learn from the Baht crisis, the use case of stablecoins comes with its own set of challenges when the market turns sour.




To illustrate this point, we present the above chart, which estimates the ratio of reserves held by various Asian countries in 1997, comparing it to a similar scenario for the Luna Foundation Guard (LFG) on the eve of the UST depegging (taking an average of reserves-to-TVL ratios from 1-8 May, just before the peg began to break on 9 May). Various benchmarks are used to determine a country's reserve adequacy. For example, the IMF recommends that reserves be at around 20% of broad money (typically M2), which is roughly comparable to this metric. As can be seen, LFG was in a similar position to Thailand and the Philippines regarding the amount of reserves it held versus the amount of economic activity on the network. As is now clear, this was as much a recipe for disaster for LFG as it was for Asian countries in 1997.

**The Baht depegging is a touchstone of financial history, in which an exchange rate can become untenable due to market forces.** What becomes clear the longer one reads about the crisis is that it was not precipitated by events in Thailand alone (with other Asian economies coming under pressure in the months prior to the depegging, which softened market confidence across the region); nor were its effects confined solely to Thailand (as shown by the aforementioned effect on the Ringgit). A series of events led to a volatile situation, which had a contagious effect on the broader market around it, as investor confidence collapsed. This event should represent a teachable moment for the crypto industry, which is now seeing both its stablecoin and DeFi markets wobble in the aftermath of the UST collapse. No project is an island in this space, and users should be vigilant concerning the risk of contagion.

It is important for crypto users to remember that, although cryptocurrency brings a range of innovations to the table, in many respects it also follows patterns laid out by the traditional finance industry. Stablecoins can be vulnerable to the same market forces as the Baht, and the same events can occur if a perfect storm of market conditions occurs. It is important, therefore, that we learn from history so we can break free of the antipatterns of traditional finance instead of repeating them.

# 3. Stablecoin Depegging Events

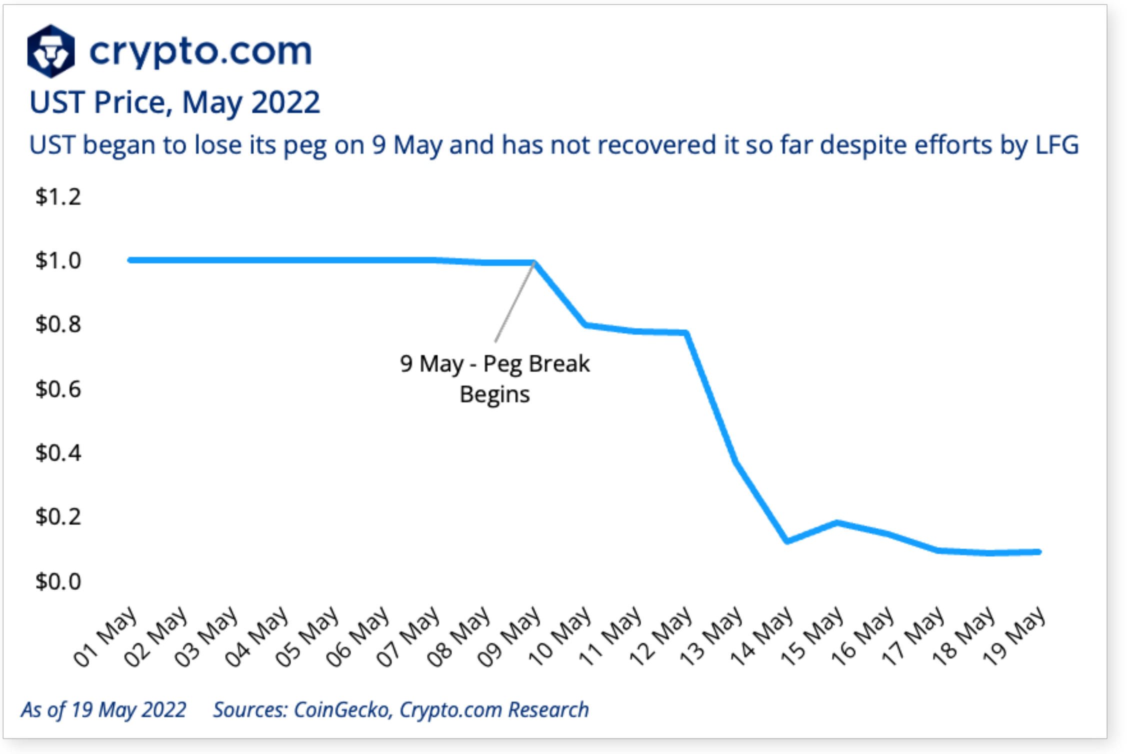
## 3.1 UST

**In the course of researching this piece, the mother of all crypto depegging events occurred.** Terra's USD stablecoin, UST, experienced an early popularity boost due to the 20% staking APY available for the token on the Anchor DeFi platform. This was a shrewd go-to-market strategy, predicted by Uncommon Core in a 2019 article, which in effect paid users 20% APY to hold UST over other stablecoins. However, despite a promising start, recent weeks have seen this ecosystem fall apart.

A good summary of the background to this event was published on Twitter in the early stages of the depegging (when UST was still worth around $0.90). As most news in the crypto world seems to break on Twitter, we make heavy use of tweets in this section of the article.

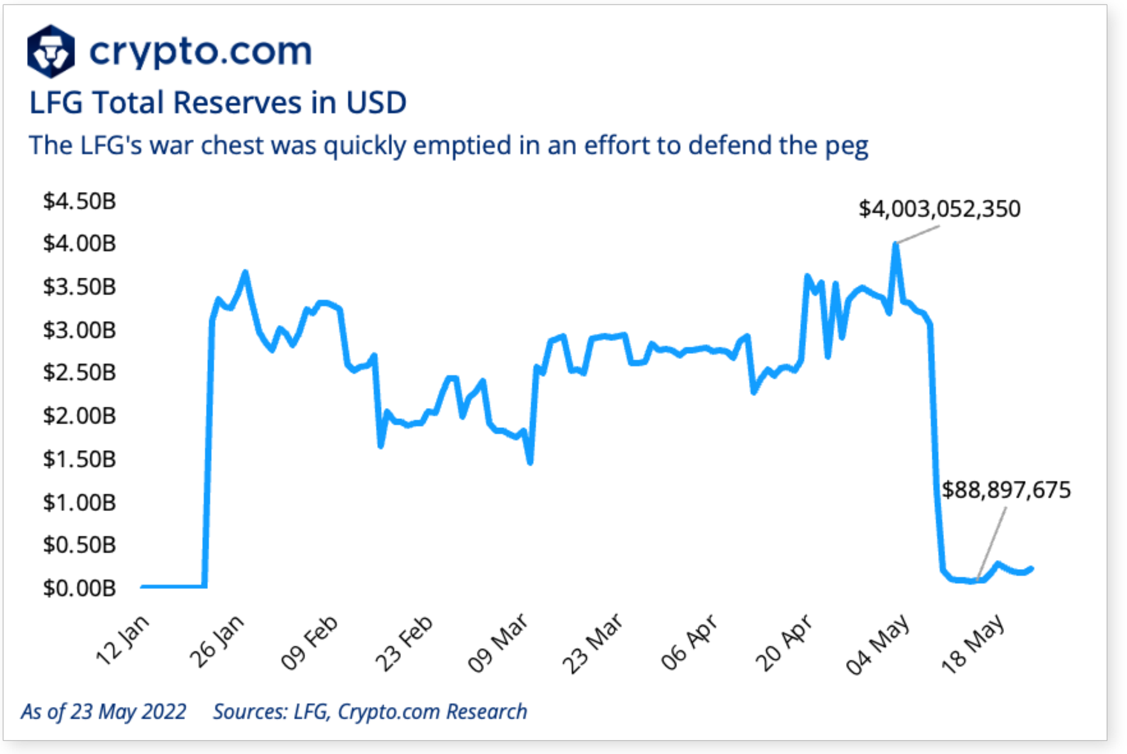
The year 2022 saw several months of market volatility that tested the tokenomics on which UST was built; 1 UST could be created by burning 1 LUNA, and 1 UST could be converted back to US$1 worth of LUNA. In response to the market volatility, the Luna Foundation Guard (LFG) bought Bitcoin (BTC) in enormous quantities to reinforce its reserves. By 9 May 2022, the uncertain environment led LFG to announce a strategy to proactively defend the UST peg using the recently accumulated BTC reserves.

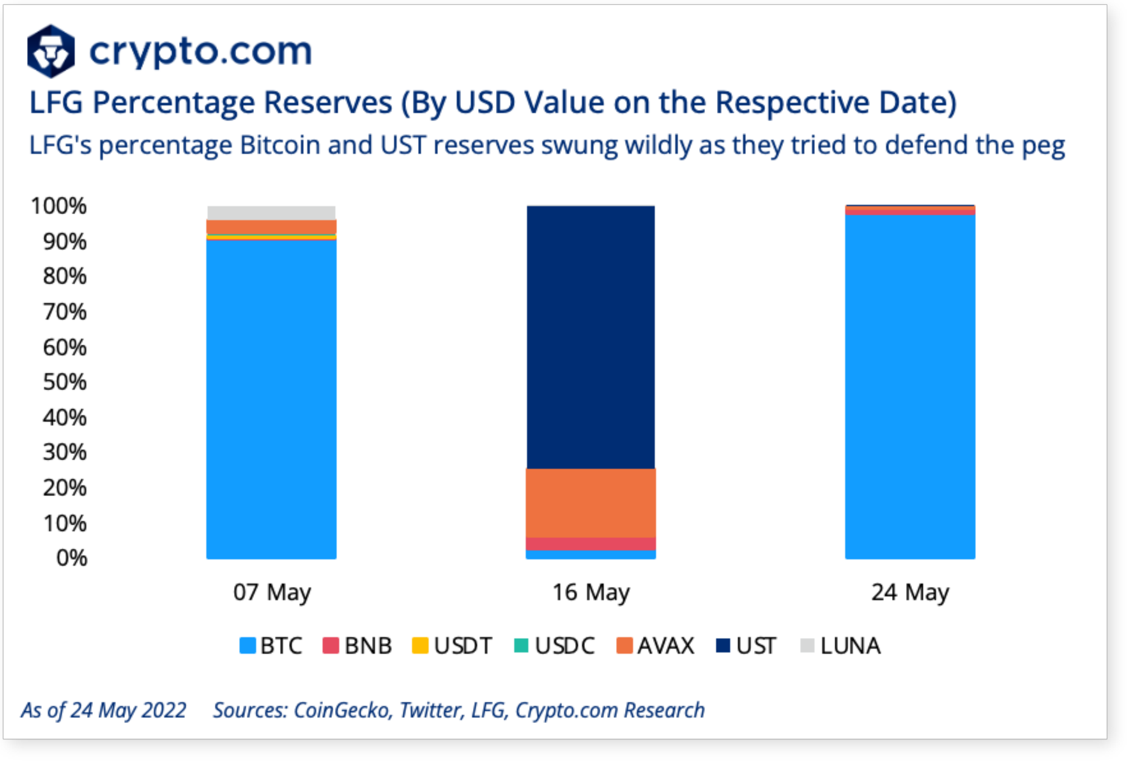
**On Monday, 9 May 2022, UST began to lose its peg with the USD.** By Friday, 13 May 2022, it had plummeted to under $0.5, and has remained roughly around this price range as of writing despite a brief price increase shortly after this drop, according to price data from CoinGecko. Arcane Research put out a piece on the recent UST depegging event (notably, the piece was written when UST appeared to have bottomed at $0.60 on Tuesday, 10 May).




**Unlike more conventional stablecoins like USDT and USDC, UST is in effect an algorithmic stablecoin backed by a basket of assets, including BTC.** As such, its tokenomics work quite differently than a one-to-one USD backing. A good description of LUNA's tokenomics can be found here.

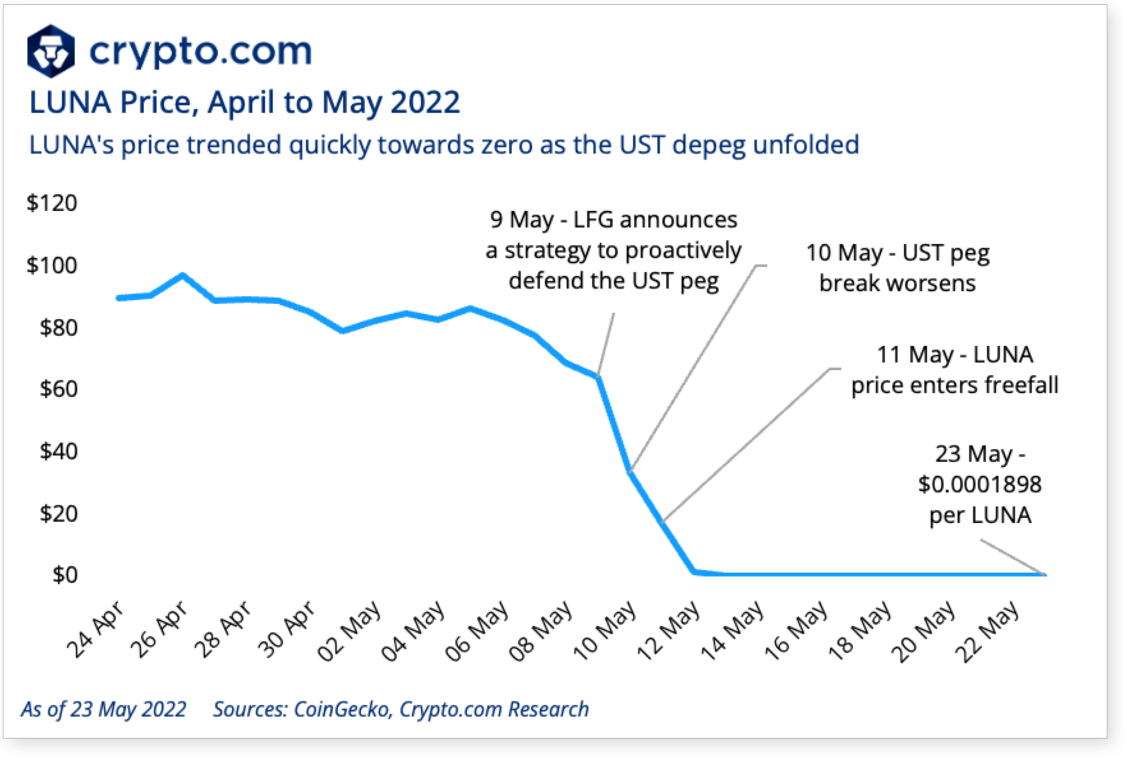
Understandably, this complicated the situation for maintaining the peg; much was made of LFG's aforementioned BTC purchases in an effort to maintain the peg in the months leading up to the crash. This war chest appears to have been almost emptied in the immediate aftermath of the peg break in an attempt to rescue the peg, going from 80,394 BTC on 7 May 2022 to just 313 BTC on 16 May 2022, according to LFG.




**In turn, this created a knock-on effect in the Bitcoin market.** Because LFG was buying Bitcoin in large quantities immediately prior to the depegging event, some in the community speculated that Bitcoin had been less affected by recent market downturns for this reason. Additionally, uncertainty over the peg led some to realise that a peg break would lead to a BTC price decrease, and therefore sold their Bitcoin in expectation, further putting pressure on the price (and, thus, UST). When LFG unwound its position, lending large amounts of Bitcoin to market makers in order to defend the peg, it resulted in a BTC price decline.

On 11 May 2022, Do Kwon published a series of tweets updating the community on the situation. At the time, it remained to be seen whether or not LUNA would recover; however, the price dropped close to 100% over the course of the day, eventually settling at under $0.01. Exchanges such as Binance began to delist the token, with CEO Changpeng Zhao explaining on Twitter that this was largely to protect users, as spiralling price inflation would likely lead to continued price crashes.




**Eventually, the price dipped low enough that the network was at risk of governance attacks, so the decision was made by validators to halt and restart the network.** Do Kwon later proposed a plan to revive the network that appears to involve a hard fork of the blockchain — in effect creating an entirely new chain. This has drawn comparisons to the DAO hack, in which the decision was made to fork the chain (creating what we now know as Ethereum and Ethereum Classic, respectively) in order to roll back transactions related to the hack. Parallels to this event have been strengthened by the apparent choice of Luna Classic (LUNC) for a rename of the old chain. This process is unfolding at the time of writing, so we encourage readers to follow the news on Twitter to get the latest updates.

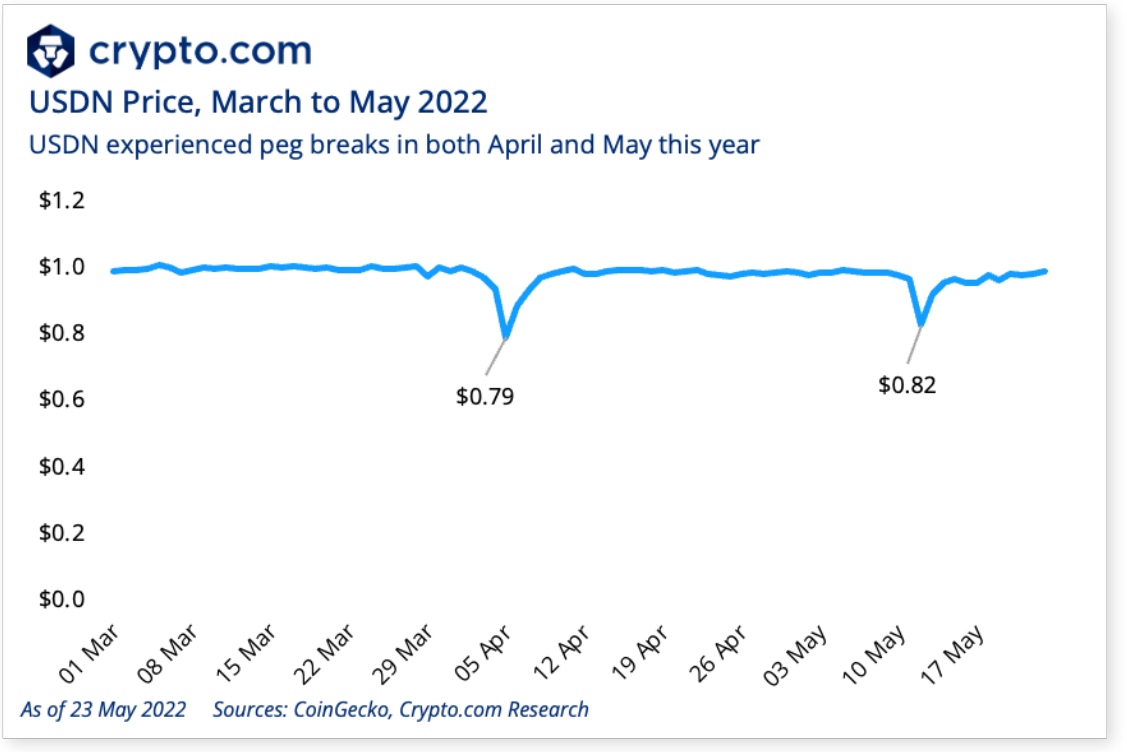
Whether or not a plan of this sort will result in the network and market for LUNA or UST to be functioning as normal remains to be seen. Regardless, it is fair to say that this event brought back uncomfortable flashbacks to the 2018 market crash for many in the community, and it rocked the market's comfort with stablecoins in general. The latter point is especially important at the time of writing, as contagion appears to have spread to other stablecoins, as we shall see below.

# 3.2 USDN

**The initial inspiration for this article came with the recent depegging event that occurred on Neutrino (USDN).** Though USDN is not one of the larger players in the stablecoin market, the depegging event caused some controversy in the community and reignited the discussion over the real stability of stablecoins, which the UST depegging has now kicked into high gear.

**In early April 2022, USDN dropped 15% from its peg.** The loss of the peg seems to have been triggered by bumpy market conditions, arising from various online accusations of impropriety by different players in the market (we at Crypto.com Research have no opinion on these allegations one way or the other, but simply report the fact that they were made and were a factor in the USDN depegging). In addition, a proposal to limit APR on Vires Finance appears to have knocked investor confidence in USDN.

**It's important to note that, as more stablecoins have hit the market, different projects have needed a means of attracting investors.** Whereas a project like Bitcoin can attract investment due to its potential for increased returns over time, a stablecoin in theory should provide a stable fiat-equivalent value (in other words, it should provide no investor return of any sort). Therefore, in order to make their stablecoin attractive to hold, developers produced high-APY staking projects such Anchor. This is relevant here due to the decline in APR on Vires — when the market is enticed to hold a coin through returns, and these returns are reduced after a certain period of time, it has a corresponding negative effect on the market that can quickly turn sour, as we can see in the chart below, which shows not one, but *two* significant peg losses in recent months.

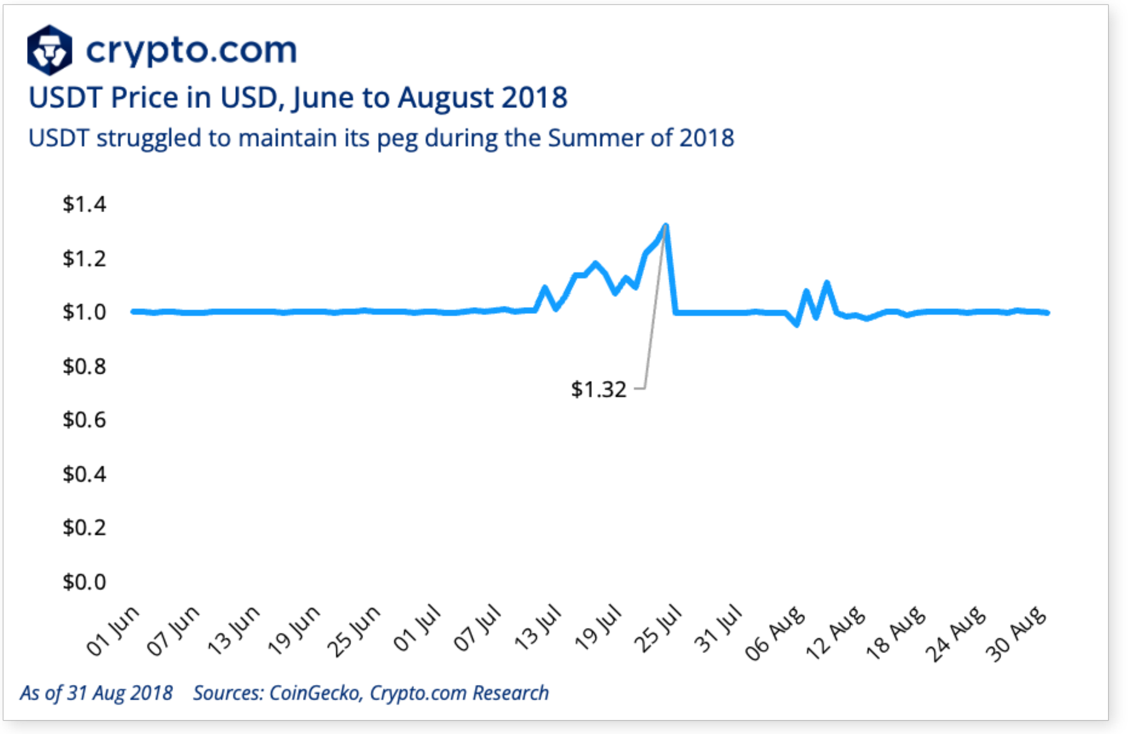



**After the initial incident in early April, USDN managed to regain its $1 peg.** However, it quickly lost the peg once again on 12 May, according to data from CoinGecko. It seems likely that this was due in part to contagion from the implosion of UST, which understandably knocked investor confidence in stablecoins across the board. Importantly, the contagion from this event seems to have spread to USDT as well, at the time of writing. It remains to be seen whether or not these projects will be able to regain their pegs in a sustainable way, or if further knock-on effects from UST contagion or other events may drag them down even more.

# 3.3 USDT

As mentioned previously, USDT is in something of a different situation than algorithmic stablecoins like UST — it is designed to be backed by $1 for every 1 USDT. **Tether was the first stablecoin of its kind — a simple and user-friendly means of converting fiat to crypto — and ushered in a new era for cryptocurrency exchanges.** However, its early years were not without controversy, as BitMEX Research succinctly outlined in 2018.

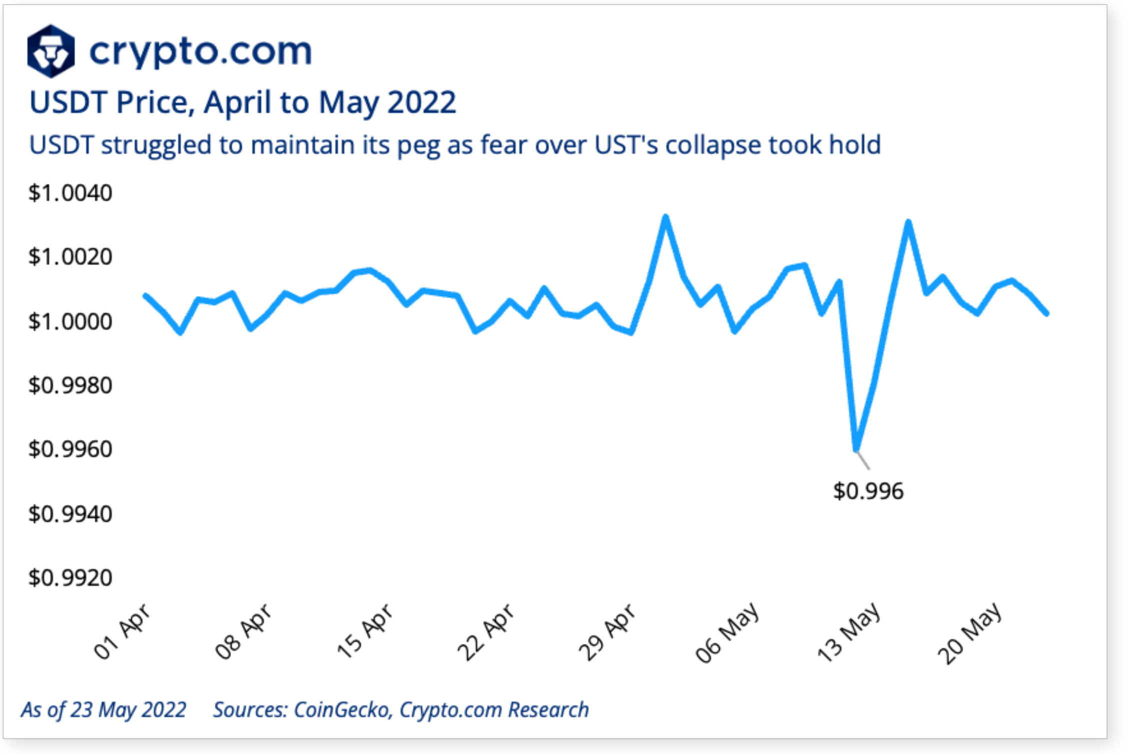
Tether's business model relies on each USDT being redeemable for $1. While a one-to-one convertibility simplifies USDT's peg to the dollar, that has not stopped it from breaking its peg on occasion.



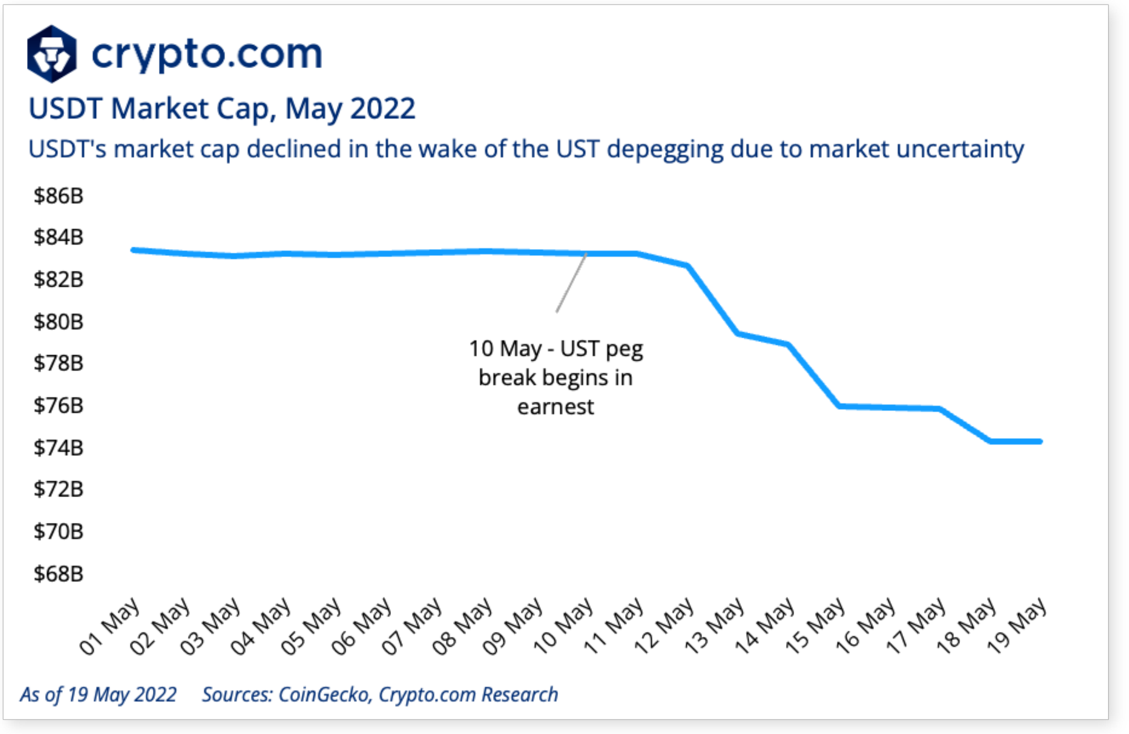

**Tether had a particularly difficult 2018.** As seen in the chart above, USDT briefly lost its peg during July that year. Reports at the time cast serious doubt on its stability, mentioning its additional peg break towards the end of the year, when it dropped to $0.51 on October 15. As CoinTelegraph pointed out at the time, the price instability throughout that year was largely a result of uncertainty in the community over Tether's reserves. Tether was a new venture for the crypto community, and demand skyrocketed almost immediately. Seeing enormous amounts of new Tether suddenly being minted, users began to question whether or not it was truly backed by sufficient reserves. Another factor in the various peg breaks that year had to do with an overall crash in the crypto market, which tested many of the assumptions on which different projects had been built (similar to what is currently occurring in the market in the wake of the UST crash).

To its credit, Tether now maintains a page on its website laying out its reserves, which appear to be primarily cash, with some other funds in the form of precious metals, secured loans, commercial paper, and a variety of others. The uncertainty in the community surrounding Tether may have died down, but it has recently reared its head once again thanks to the UST debacle.

**The UST peg break had the additional contagious effect of causing fear across the market that USDT would be next to lose its peg.** This caused USDT to briefly drop its peg. But as Paolo Ardoino reassured users on Twitter, the system by which users could redeem their USDT for $1 each on Tether's website was unaffected. This demonstrates that sometimes it is the fear of the market that really matters, rather than the real situation underlying that fear.




A good analysis of this situation as it developed was published by Arcane Research. **This kind of depegging is notable for its similarity to the Baht crisis, namely that it was triggered by capital flight.** The flight in this case was triggered largely by panic arising from the UST situation. USDT has long been under a cloud of suspicion from some segments of the market (rightly or wrongly), and the UST incident seems to have stirred up fears that USDT would be the next to fall (which, ironically, caused the depegging in the first place, demonstrating how much impact social forces can have on economic processes). While the UST collapse buckled the market in the short term, Arcane makes the point that, as 50% of open interest on crypto derivatives is based on USDT collateral, a similar USDT collapse would be catastrophic for the market. As such, some have pointed to the declining USDT market cap as a sign that some sectors of the market are beginning to reduce their exposure, just in case.




USDT has thus far retained its peg every time it was at risk of dropping it, despite various minor depegging incidents. While there may occasionally be large amounts of fear circulating in the market, the fact that USDT has so far proved resilient is a positive sign for the health of this segment of the crypto market. Nonetheless, investors are encouraged to do their own research on the various risks surrounding different stablecoins to ensure they are fully informed before converting their fiat.

# 4. Conclusion

**The crypto community was rocked in mid-May 2022 with the news of UST depegging.** This event and the ensuing market crash have made many in the community question the stability of projects on the market. However, those who lived through previous market crashes, such as that of 2018, may be somewhat less surprised that something like this occurred.

**When the dust settles, this event will serve as a reminder that the crypto industry is still nascent in many areas, and may be vulnerable to market forces in ways that one might not expect.** Currency depegging has occurred before in fiat markets, and works in a similar way. However, this is often overlooked by the fiat-averse crypto world. We hope that this article may provide some context on these events, and put them into perspective for investors, who are encouraged to make sensible and educated choices when deciding on investment opportunities in this market.

# References

Ardoino, Paolo. "Paolo Ardoino בטוויטר: "GM Reminder that tether is honouring USDt redemptions at 1$ via https://t.co/fB12xESSvB . >300M redeemed in last 24h without a sweat drop."" Twitter, 12 May 2022, https://twitter.com/paoloardoino/status/1524625162859130882. Accessed 24 May 2022.

Avan-Nomayo, Osato. "Luna Foundation Guard buys additional $1.5 billion in bitcoin backing for UST." The Block, 5 May 2022, https://www.theblockcrypto.com/post/145289/luna-foundation-guard-buys-additional-1-5-billion-in-bitcoin-backing-for-ust. Accessed 24 May 2022.

Binance. "Binance on Twitter: "Binance will remove and cease trading on the following spot trading pairs at 12:50am UTC, May 13: 🔸 BTC/UST 🔸 LUNA/UST 🔸 ETH/UST 🔸 BNB/UST 🔸 UST/USDT Binance will remove and cease trading on the BUSD-Margined Perpetual …" Twitter, 13 May 2022, https://twitter.com/binance/status/1524934519685455873. Accessed 24 May 2022.

BitMEX Research. "About Tether." BitMEX Blog, 18 February 2018, https://blog.bitmex.com/tether/. Accessed 24 May 2022.

Carson, Michael, and John Clark. "Asian Financial Crisis." Federal Reserve History, 22 November 2013, https://www.federalreservehistory.org/essays/asian-financial-crisis. Accessed 24 May 2022.

Cookson, Richard. "Hong Kong Dollar's Peg to the Greenback Has Become Untenable." Bloomberg.com, 27 April 2022, https://www.bloomberg.com/opinion/articles/2022-04-27/hong-kong-dollar-s-peg-to-the-greenback-has-become-untenable. Accessed 24 May 2022.

Copeland, Tim. "Tether Causes Market Chaos as New Questions Emerge." Decrypt, 16 October 2018, https://decrypt.co/3707/tether-causes-market-chaos. Accessed 24 May 2022.

De, Nikhilesh. "LUNA, UST Issuer Terra Restarts Blockchain After Brief Shutdown." CoinDesk, 12 May 2022, https://www.coindesk.com/business/2022/05/12/luna-issuer-terra-halts-blockchain-after-week-of-losses/. Accessed 24 May 2022.

Godbole, Omkar. "Waves' USDN Stablecoin Loses Peg, Drops 15% Amid Manipulation Scare." CoinDesk, 4 April 2022, https://www.coindesk.com/markets/2022/04/04/waves-usdn-stablecoin-loses-peg-drops-15-amid-manipulation-scare/. Accessed 24 May 2022.

Goldman Sachs. “Commemorates 150 Year History - Speculative Attacks Force East Asian Countries to Let their Currencies Float, Resulting in the Asian Financial Crisis of 1997.” Goldman Sachs, https://www.goldmansachs.com/our-firm/history/moments/1997-asia-financial-crisis.html. Accessed 24 May 2022.

“Hong Kong defends local dollar in first currency intervention in 18 months, as capital flows out in pursuit of higher US yields.” South China Morning Post, 12 May 2022, https://www.scmp.com/business/banking-finance/article/3177394/hong-kong-defends-local-dollar-first-currency-intervention. Accessed 24 May 2022.

Hong Kong Monetary Authority. “Hong Kong’s Latest Foreign Currency Reserve Assets Figures Released.” Hong Kong Monetary Authority, 7 January 2022, https://www.hkma.gov.hk/eng/news-and-media/press-releases/2022/01/20220107-3/. Accessed 24 May 2022.

International Monetary Fund. “Assessing Reserve Adequacy—Specific Proposals, IMF Policy Paper, December 19, 2014.” International Monetary Fund, 19 December 2014, https://www.imf.org/external/np/pp/eng/2014/121914.pdf. Accessed 25 May 2022.

Investopedia. “Broad Money Definition.” Investopedia, https://www.investopedia.com/terms/b/broad-money.asp. Accessed 25 May 2022.

Jenkinson, Gareth. “Untethered: The History of Stablecoin Tether and How It Has Lost Its $1 Peg.” Cointelegraph, 17 October 2018, https://cointelegraph.com/news/untethered-the-history-of-stablecoin-tether-and-how-it-has-lost-its-1-peg. Accessed 24 May 2022.

Jha, Prashant. “Finance Redefined: Lifeline for Terra projects, proposed Terra hard fork and more.” Cointelegraph, 20 May 2022, https://cointelegraph.com/news/finance-redefined-lifeline-for-terra-projects-proposed-terra-hard-fork-and-more. Accessed 24 May 2022.

Kessler, Sam, and Shaurya Malwa. “LFG Reserves Dwindle to Just 313 Bitcoins From 80K After UST Crash.” CoinDesk, 16 May 2022, https://www.coindesk.com/business/2022/05/16/luna-foundation-guard-left-with-313-bitcoin-after-ust-crash/. Accessed 24 May 2022.

Knight, Oliver. “Luna Foundation Guard Acquires $1.5B in Bitcoin to Reinforce Stablecoin Reserves.” CoinDesk, 5 May 2022, https://www.coindesk.com/business/2022/05/05/luna-foundation-guard-acquires-15b-in-bitcoin-to-reinforce-stablecoin-reserves/. Accessed 24 May 2022.

Kwon, Do. “Do Kwon 🌕 on Twitter: “1/ Terra governance prop #1623 to rename the existing network Terra Classic, LUNA Classic ($LUNC), and rebirth a new Terra blockchain & LUNA ($LUNA) is now live. Vote here: https://t.co/ZlGxNCUTMa.”” Twitter, 18 May 2022, https://twitter.com/stablekwon/status/1526896786685583360. Accessed 24 May 2022.

Kwon, Do. “Do Kwon 🌕 on Twitter: "1/ Dear Terra Community:” / Twitter.” Twitter, 11 May 2022, https://twitter.com/stablekwon/status/1524331171189956609. Accessed 24 May 2022.

Lee, Richard, and Charles Potters. “Pegged Exchange Rates: The Pros and Cons.” Investopedia, 31 December 2021, https://www.investopedia.com/articles/forex/08/pegged-vs-floating-currencies.asp. Accessed 24 May 2022.

Luna Foundation Guard. “LFG | Luna Foundation Guard on Twitter: “1/ As of Saturday, May 7, 2022, the Luna Foundation Guard held a reserve consisting of the following assets: · 80,394 $BTC · 39,914 $BNB · 26,281,671 $USDT · 23,555,590 $USDC · 1,973,554 $AVAX · 697,344 …” Twitter, 16 May 2022, https://twitter.com/LFG_org/status/1526126703046582272. Accessed 24 May 2022.

Luna Foundation Guard. “LFG | Luna Foundation Guard on Twitter: “1/ Over the past several days, market volatility across crypto assets has been significant. The market turmoil is also reflected by the past week’s uncertain macro conditions across legacy asset classes.” / Twitter.” Twitter, 9 May 2022, https://twitter.com/LFG_org/status/1523512196965167104. Accessed 24 May 2022.

Lunde, Vetle. “Derivatives update: Chaotic deleveraging and wildly negative funding rates.” Arcane, 16 May 2022, https://arcane.no/research/derivatives-update-chaotic-deleveraging-and-wildly-negative-funding-rates. Accessed 24 May 2022.

Lunde, Vetle. “The structural risks of algorithmic stablecoins: UST de-pegging and contagion.” Arcane, 10 May 2022, https://arcane.no/research/the-structural-risks-of-algorithmic-stablecoins-ust-de-pegging-and-contagion. Accessed 24 May 2022.

Monero, Ramon. “Lessons from Thailand.” Federal Reserve Bank of San Francisco, 7 November 1997, https://www.frbsf.org/economic-research/publications/economic-letter/1997/november/lessons-from-thailand/. Accessed 24 May 2022.

Pedro. "Pedro on Twitter: "Update on Luna Tokenomics + How to predict when depeg will end. Bringing back my "death spiraling Luna" model. Turns out it was accurate. All of those "Didn't age well" jabs at it Didn't Age Well. 1/24" / Twitter." Twitter, 11 May 2022, https://twitter.com/pedroexplore1/status/1524216974611517443. Accessed 24 May 2022.

Reuters. "TIMELINE — China's reforms of the yuan exchange rate." Reuters, 19 June 2010, https://www.reuters.com/article/china-economy-yuan-idUSSGE65I02S20100619. Accessed 24 May 2022.

Reynolds, Sam. "Luna Foundation Guard Lends $1.5B in BTC and UST for Stablecoin Peg." CoinDesk, 8 May 2022, https://www.coindesk.com/markets/2022/05/09/luna-foundation-guard-lens-15b-in-btc-and-ust-for-stablecoin-peg/. Accessed 24 May 2022.

Rummer, Andrew. "Tether's market price slips below dollar parity amid ongoing stablecoin woes." The Block, 12 May 2022, https://www.theblockcrypto.com/post/146490/tethers-market-price-slips-below-dollar-parity-amid-ongoing-stablecoin-woes. Accessed 24 May 2022.

Sandor, Krisztian. "Crisis in Terra's UST Stablecoin Spreads to Neutrino USD on Waves Protocol." CoinDesk, 11 May 2022, https://www.coindesk.com/markets/2022/05/11/crisis-in-terras-ust-stablecoin-spreads-to-neutrino-usd-on-waves-protocol/. Accessed 24 May 2022.

Shubber, Kadhim. "Crypto lender's Tether loan halved." Financial Times, 13 May 2022, https://www.ft.com/content/5eff6c38-9410-45af-94f7-2488b3a87cad. Accessed 24 May 2022.

Siegel, David. "Understanding the DAO Attack." Coindesk, 25 June 2016, https://www.coindesk.com/learn/2016/06/25/understanding-the-dao-attack/. Accessed 30 May 2022.

Sin, Noah. "Explainer: Dollar peg is critical to Hong Kong amid U.S. threats, China worries." Reuters, 3 June 2020, https://www.reuters.com/article/us-hongkong-protests-markets-peg-explain-idUSKBN23A1JJ. Accessed 24 May 2022.

Weissman, Cale Guthrie. "Beyond the bubble: What happened to bitcoin in 2018?" Fast Company, 21 December 2018, https://www.fastcompany.com/90285052/beyond-the-bubble-what-happened-to-bitcoin-in-2018. Accessed 24 May 2022.

Wu, Jon. “jonwu.aztec on Twitter: “An $18 billion stablecoin is losing its dollar peg with all the magical chaos of algorithmic stables, with a dash of Bitcoin systemic risk drama. Here’s everything you need to know. The $UST Depeg Thread: 👇.”” Twitter, 10 May 2022, https://twitter.com/jonwu_/status/1523793482850050048. Accessed 24 May 2022.

Zhao, Changpeng. “CZ 🔶 Binance on Twitter: “1. At #Binance we prioritize user protection. We made the decision to suspend LUNA and UST trading. Here’s why. A thread 👇.”” Twitter, 13 May 2022, https://twitter.com/cz_binance/status/1525060769771048960. Accessed 25 May 2022.

Zhu, Su, and Hasu. “Interest Rates are the Next Battleground in the Stablecoin Wars.” Uncommon Core, 18 February 2019, https://uncommoncore.co/interest-rates-are-the-next-battleground-in-the-stablecoin-wars/. Accessed 24 May 2022.

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