

# Cryptocurrency meets OFAC in 2022

It's been a noisy year in crypto as it bounced down the ladder. The first thump was on the rung when inflation driven interest rate rises showed that crypto was just another correlated risk asset. The second thump was when a whole lot of people hanging on to an invisible rung in the Bahamas called FTX, fell off. It was obviously not there to anyone with open eyes - because it was in the Bahamas, yet it also pulled quite a few so-called professionals off their air hooks as well. And then there is the other fall that is in progress and is yet to make its thump, which is the massive 120k+ layoffs in the wider tech industry that augurs a time of general malaise in the tech industry as over investment and over optimism resets like it did in 2000. All that is just another day on the ladder in the crypto and technology playground.

But what I find most interesting this year is the snake of regulation that has been slowly and silently, but doggedly, sliding its way up. Anyone who says crypto is not regulated is clearly not paying attention. Almost all major jurisdictions have made declarations as to how various crypto coins and assets fit into banking, securities, tax, and anti money laundering laws. All exchanges operating in the USA now do so within a legal framework, including NOT offering services that regulators don't want. The idea that crypto is a wild land of no regulations is talking off an old and wrong script. However it is still true to say that crypto still offers some interesting and new mechanisms for bad actors to operate, and these are exercising the regulators in new ways. And so the focus of this note is about some interesting developments in the way the USA is addressing these problems through the U.S. Department of the Treasury's Office of Foreign Assets Control (OFAC).

In simple terms the OFAC system is the application of USA power in the global financial system, regardless of jurisdiction. It is in effect the financial version of a predator drone that is deployed against those foreigners deemed hostile to USA interests but outside of USA legal jurisdictions. Through the maintenance of the OFAC list of "Specially Designated Individuals" (the SDN List) the USA government blocks their assets and US persons are prohibited from dealing with them. The process can also include enforcement programs that are not nation state specific such as drug, terrorism programs, money laundering, etc. The effect of being on this list includes exclusion from international trade, banking, travel etc, the forfeiture of assets able to be reached by the US government, and exclusion from sourcing/selling goods and services from/to the USA market. The need for USA companies and individuals to comply with USA laws and regulations also means that USA companies and citizens become the compliance officers of the SDN List and OFAC objectives.

There are three areas I find interesting to highlight where the OFAC powers have been applied to crypto over 2022. The first event was the pursuit of the goal of frustrating Russian attempts to skirt financial sanctions post the Ukraine crisis. In April 2022, among other sanctions, OFAC specifically included "TARGETING RUSSIA'S VIRTUAL CURRENCY MINING INDUSTRY" in an

OFAC action. The press release<sup>1</sup> included that “Russia has a comparative advantage in crypto mining due to energy resources and a cold climate. However, mining companies rely on imported computer equipment and fiat payments, which makes them vulnerable to sanctions.” As well as targeting a Swiss holding company of the Russian crypto mining company “BitRiver AG”, 12 other Russian based companies and subsidiaries were sanctioned so as to ensure that their supply of crypto mining equipment was stopped and they lost their ability to transact internationally in fiat currency.

The second event was in August 2022 when it was announced<sup>2</sup> that the “U.S. Treasury Sanctions Notorious Virtual Currency Mixer Tornado Cash”. A virtual currency mixer is a technique whereby users mix their transactions with other users transactions so that while the crypto address owners going into the transactions may be known by law enforcement, it is impossible to know who gets what from the transactions that come out of the process. These services are used to launder crypto addresses that are known by US law enforcement to be controlled by bad actors and the notice specifically cites that in the Tornado Cash case this included “over \$455 million stolen by the Lazarus Group, a Democratic People’s Republic of Korea (DPRK) state-sponsored hacking group that was sanctioned by the U.S. in 2019, in the largest known virtual currency heist to date”. What is interesting in this case is that the operators/developers claimed that they were simply writing open source software and putting it on the blockchain as a smart contract which was unstoppable and uncensorable and not their fault how people used it. Several USA based crypto industry groups also took up that argument, going so far as to claim that smart contract software is covered by the first amendment (Phil Zimmerman argued this with PGP - however he published it in a hardcover book to make his point). That is for the courts to decide, however the OFAC order was also creative in that it also added the specific ethereum address of the Tornado Cash smart contract to the SDN List, thus barring any American person or company from even using it.

The third event was observed in September 2022 when Ethereum moved from the “Proof of Work” (POW) mining model to “Proof of Stake” (POS). POW is notoriously energy intensive as it uses a hardware driven race to mine, while POS puts capital - staked Ethereum - at risk to ensure miner compliance. POS uses about 1% equivalent power making the environmental issues irrelevant. An unintended consequence of this move and the fact that POS mining consolidated into pools that offered the highest return on transaction fees (a technique called “Maximal extractable value” or MEV) was that it also moved more than half of the network’s mining power into the USA<sup>3</sup> (the USA is the largest capital market after all). Now, as US based mining operations are under US law, this means that they have to abide by OFAC orders and the SDN List - the result being that any crypto addresses that are on the SDN list and seen putting transactions on the network will not have their transactions validated by OFAC compliant miners. This doesn’t cancel transactions - they just wait longer as they have to wait for a non OFAC compliant miner to do the work for them - but it does show the power of OFAC as a tool

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<sup>1</sup> <https://home.treasury.gov/news/press-releases/jy0916>

<sup>2</sup> <https://home.treasury.gov/news/press-releases/jy0731>

<sup>3</sup> <https://www.mevwatch.info/>

to bring crypto under the power of US law and control. Bitcoin is suffering the same fate as mining leaves China and Russia and consolidates in America.

Having watched crypto since the start I am frankly surprised it got started, let alone got to this point. But while 2022 has been a tough year for over valued and over hyped crypto assets, I don't buy into the idea that this is the start of a catastrophic ice age that freezes crypto out for good. Another "crypto winter" is upon us, however the technology is just so useful and in the hands of so many creative people that it's not going away, and neither are the regulators. I remain highly interested, but am nevertheless a neutral observer of the wins and losses of both the technology "freedom absolutists" and the work of those that we trust to protect our institutions. But clearly, just as the technologists can innovate, so can the regulators.