

**UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
AUSTIN DIVISION**

Joseph Van Loon et al.,

Plaintiffs,

v.

Department of the Treasury et al.,

Defendants.

Civil Action No. 1:23-cv-00312-RP

**BRIEF OF BLOCKCHAIN ASSOCIATION AND DEFI EDUCATION FUND
AS *AMICI CURIAE* IN SUPPORT OF PLAINTIFFS' MOTION FOR
PARTIAL SUMMARY JUDGMENT**

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INTEREST OF *AMICI CURIAE*

Amici curiae, the Blockchain Association (the “Association”) and DeFi Education Fund (“DEF”), are leading nonprofit organizations dedicated to improving the policy environment for the digital asset economy and ensuring blockchain technology innovation can thrive. *Amici* work to educate policymakers, regulators, courts, and the public about the nature and benefits of blockchain technology and decentralized finance. The Association does so as a representative of more than 100 member companies that reflect the diversity of the dynamic blockchain industry, while DEF represents the interests of users, participants, and software developers in the sphere of decentralized finance.

The decision of the Office of Foreign Assets Control (“OFAC”) to sanction Tornado Cash—privacy-protecting software used on the Ethereum blockchain—raises serious regulatory and constitutional questions that have wide-ranging effects on the blockchain ecosystem and the digital asset economy. *Amici* submit this brief to assist the court in understanding blockchain technology and the serious problems with the sanctions at issue.

INTRODUCTION AND SUMMARY OF ARGUMENT

OFAC’s decision to sanction Tornado Cash—an open-source software protocol with no owner or operator—reflects a basic misunderstanding of what Tornado Cash is and how it works. Until OFAC imposed sanctions, Tornado Cash was the most popular privacy-protecting tool on Ethereum, the world’s second-largest digital asset platform.¹ And it is just that—a tool. Far from the centralized organization that OFAC alleges, Tornado Cash is merely self-executing computer software published on the Ethereum blockchain. This software has no owner or operator, and it

¹ See George Kaloudis & Edward Oosterbaan, *How Popular Are Crypto Mixers? Here’s What the Data Tells Us*, CoinDesk (Nov. 7, 2022), <https://bit.ly/3Xb0iok>; *Today’s Cryptocurrency Prices by Market Cap*, CoinMarketCap, <https://bit.ly/3IFcoSs> (last visited Apr. 11, 2023).

functions automatically without any human intervention or assistance. Like any tool—indeed, like the internet itself—software like Tornado Cash can be misused for illicit purposes. But it is used primarily for legitimate and socially valuable reasons. *See* Pl.’s Mot. for Partial. Summ. J. at 23.

OFAC’s attempt to sanction the Tornado Cash computer code is both unprecedented and unlawful. The Administrative Procedure Act forbids agency action undertaken “not in accordance with law,” 5 U.S.C. § 706(2)(A), and OFAC’s sanctions both exceed its statutory authority and are the product of arbitrary-and-capricious decision-making, *see id.* § 706(2)(A), (C). This Court should grant partial summary judgment to the Plaintiffs.

ARGUMENT

I. TORNADO CASH IS AN IMPORTANT TOOL FOR PROTECTING THE PRIVACY OF DIGITAL ASSET USERS.

Americans are using digital assets more than ever. A recent study found that 20 percent of American adults own digital assets, and 29 percent plan to buy or trade digital assets in the next year.² And it is not hard to see why: digital asset networks utilize blockchain technology, which provides a decentralized, internet-based alternative to traditional finance, thus freeing users from a multitude of third-party middlemen, like banks and payment processors, or even from a particular country’s currency.³ This freedom is not only more efficient and less expensive than traditional systems, but it also allows users to regain the power and ownership taken away from them by

² *Cryptocurrency Perception Study*, Morning Consult (Feb. 24, 2023), <https://bit.ly/3FUayeO>.

³ *See generally What Is Cryptocurrency?*, Coinbase, <https://bit.ly/3lSamp7> (last visited Apr. 11, 2023).

intermediaries.⁴ In doing so, it creates a valuable alternative for the millions of Americans who are “unbanked” or “underbanked” because of the world’s historically discriminatory and increasingly powerful traditional financial institutions.⁵

Two additional points are critical here. *First*, as detailed below, people conduct digital asset transactions through a “blockchain,” which is an interconnected network of computers that automatically records every single transaction on a public ledger, viewable by anyone on the internet, in contrast to the private ledgers used by traditional banks. This new system creates a particular need for privacy protections to avoid sharing all of one’s financial dealings with everyone else. *Second*, before OFAC’s sanctions interfered, Tornado Cash served as the go-to tool for law-abiding users of Ethereum to fill this critical need.

A. Financial Privacy Is Essential In The Digital Asset Sphere.

A blockchain functions like a bank’s ledger: it records and tracks every transaction on a given platform. Am. Compl. ¶ 41. But unlike a bank’s ledger—which is private, modifiable, and subject to the bank’s control—blockchains like Ethereum are public, permanent, and maintained through a decentralized network of independent computers. When a transaction occurs, this network validates it and then adds it to the “chain,” where every transaction that has ever occurred in the history of that blockchain is publicly viewable and cannot ever be changed or removed. *Id.* ¶¶ 41, 43.

⁴ See, e.g., Jerry Brito, *Report: The Case for Electronic Cash*, Coin Center (Feb. 2019), <https://bit.ly/3Z2ybcj>; Aaron Terr, *PayPal Is No Pal to Free Expression*, Found. for Individual Rts. & Expression (Sept. 30, 2022), <https://bit.ly/3Z0pKOW>.

⁵ Miller Whitehouse-Levine & Lindsey Kelleher, *Self-Hosted Wallets and the Future of Free Societies: A Guide for Policymakers*, Blockchain Ass’n (Nov. 2020), <https://bit.ly/3XQDqut>.

One consequence of this technology is that every user's interactions on the blockchain network—including any financial transactions—are public to all other users. Although the “chain” does not list anyone's name, it executes transactions via “public keys” (as opposed to password-like “private keys”) that are generally under the control of specific persons. *See id.* ¶ 42. Like an email account used to send, receive, or store messages—or a physical address in the analog world—the public key is the address that people use to send, receive, or store digital assets. *Id.* But unlike these comparators, the blockchain is fully public, so all users can see the core components of every transaction that has ever occurred—the sender's public key, the receiver's public key, and the amount, type of asset, and time transmitted. And because users use the same public key to engage in many—if not all—of their transactions, any time a user engages in a deanonymized transaction—such as an employee paid partially through digital assets⁶—the user is deanonymizing his entire past and future transaction history to his counterparty, not to mention anyone else who may know the identity behind the user's public key. Moreover, users can sometimes be involuntarily deanonymized, as complete strangers might be able to deduce their real-world identities based on their transaction patterns or other public information.⁷

To avoid broadcasting their finances to the world, many digital asset holders have turned to privacy-protecting tools like Tornado Cash. Such tools allow users to reclaim privacy that would be available as a matter of course in other contexts, while retaining the benefits that come with using blockchain technology. It would, for example, be unthinkable if every store could view

⁶ Cloey Callahan, *Here's How Some Employees Are Being Paid in Cryptocurrencies*, WorkLife (Sept. 2, 2022), <https://bit.ly/4040SXg>.

⁷ Adam Ludwin, *How Anonymous Is Bitcoin?*, Coin Center (Jan. 22, 2015), <https://bit.ly/3SIll6Y>. For this reason, blockchain is sometimes referred to as not anonymous but pseudonymous.

every purchase that its customers ever made based on a single payment, or if random bystanders could view the transactions on every consumer's credit-card statements. There are innumerable understandable reasons why law-abiding people would not want their friends and neighbors to know the full details of every purchase they make, every cause they financially support, and indeed *every* transaction of *any* sort they undertake. There is nothing odd or nefarious about wanting to keep basic personal details private.

In addition to protecting privacy in general, tools like Tornado Cash allow users to protect themselves from bad actors. Particularly when a user's transaction history indicates wealth, the user risks being targeted by hackers, thieves, and other wrongdoers.⁸ And when the blockchain contains enough information for a user's identity to be unmasked, these attacks can spill into the physical world, where digital asset users have been the victims of crimes ranging "from simple robberies to home invasions, kidnappings, torture, and even murder."⁹

Moreover, the need for privacy is heightened for certain, particularly sensitive transactions. For example, digital asset users often prioritize anonymity when supporting politically charged causes, for fear of reprisal or government sanction.¹⁰ Indeed, online harassers targeted one of the plaintiffs in this case after he made digital asset donations to support Ukrainian relief efforts. Am. Compl. ¶¶ 21–22. Likewise, privacy can be paramount when users engage in deeply personal transactions, such as a patient paying for medical procedures or a survivor of sexual assault

⁸ Andrew R. Chow, *A New U.S. Crackdown Has Crypto Users Worried About Their Privacy*, TIME (Aug. 10, 2022), <https://bit.ly/3kcSwNo>.

⁹ Rob Price, *Kidnapped for Crypto: Criminals See Flashy Crypto Owners as Easy Targets, and It Has Led to a Disturbing String of Violent Robberies*, Bus. Insider (Feb. 9, 2022), <https://bit.ly/3xAtavI>.

¹⁰ Zachary Halaschak, *Canadian Crackdown on Truckers Highlights Privacy Benefits of Cryptocurrency*, Wash. Examiner (Feb. 24, 2022), <https://bit.ly/42tU1rw>.

crowdfunding expenses for her recovery.¹¹ Without privacy, users may feel forced to forgo transactions like these. *E.g., id.* ¶ 23.

B. Tornado Cash Is An Autonomous Technological Tool to Preserve Financial Privacy.

Before OFAC’s sanctions, Tornado Cash enabled Americans to protect their privacy while using Ethereum. And many availed themselves of it: as the most popular privacy tool on Ethereum, Tornado Cash has attracted more than 12,000 unique users, who have executed more than \$7.9 billion in transactions.¹² The vast majority of such privacy-protecting transactions—more than 75 percent of transacted funds, according to OFAC’s analysis of Tornado Cash and similar tools—has been licit. *See* Pl.’s Mot. at 23.

Tornado Cash is composed of strings of open-source code that independent developers have published to Ethereum. Am. Compl. ¶ 47. It operates autonomously via “smart contracts” that are programmed to self-execute certain actions when prompted by Ethereum users. *See id.* ¶¶ 48–49; Pl.’s Mot. at 5. Each smart contract is assigned a public address, similar to a user’s public key, with which any user can interact. Pl.’s Mot. at 4–5. The core Tornado Cash smart contracts are known as “pools,” which are simply code protocols through which users can route digital asset deposits and withdrawals.¹³ The pools are programmed to automatically generate,

¹¹ Brooke Becher, *U.S. Sanctions on Tornado Cash: What Does This Mean for Crypto?*, Built In (Nov. 1, 2022), <https://bit.ly/3KmqDNB>; Leigh Cuen, *Sexual Assault Survivor Uses Crypto to Crowdfund Anonymously*, CoinDesk (Sept. 13, 2021), <https://bit.ly/3lhWmfV>.

¹² *Tornado Cash Analysis*, Dune, <https://bit.ly/3kjYg7T> (last visited Apr. 11, 2023); *cf. Tornado Cash Alternatives*, Elliptic (Oct. 11, 2022), <https://bit.ly/3U2FuzD> (comparing Tornado Cash with its much-smaller competitors).

¹³ Alex Wade et al., *How Does Tornado Cash Work?*, Coin Center (Aug. 25, 2022), <https://bit.ly/3Z0Qnnf>.

upon a deposit, a randomized key through which the depositing user can later withdraw funds.¹⁴ Further, the pools are non-custodial, which means that users can only withdraw the specific funds that they submit and retain full control of their funds between deposit and withdrawal.¹⁵ In other words, thanks to the unique power of blockchain technology, no person other than the user to whom the assets belong has control over those assets. Tornado Cash thus supplies a secure mechanism for users to protect their anonymity by severing the public connection linking all their Ethereum deposits and withdrawals.

Another key feature of the Tornado Cash pools is that they have been programmed to be autonomous and immutable. This means nobody owns them, controls them, or has the ability to alter or terminate them. Although the pools originally were programmed to allow a designated “operator” to update their coding, a 2020 update revoked this functionality for all active pools.¹⁶

These features distinguish the Tornado Cash *software*—which is non-custodial and fully autonomous—from privacy *services* owned or operated by persons or entities.¹⁷ These latter services (unlike autonomous software) facilitate privacy by taking control of users’ funds to shuffle

¹⁴ *Id.*

¹⁵ *Id.*

¹⁶ *Id.*

¹⁷ For an example of an owned-and-operated privacy service, see the Blender.io currency mixer, which OFAC separately sanctioned earlier in 2022. *U.S. Treasury Issues First-Ever Sanctions on a Virtual Currency Mixer, Targets DPRK Cyber Threats*, U.S. Dep’t of the Treasury (May 6, 2022), <https://bit.ly/3FHi9xd>.

them with other users' funds.¹⁸ And in contrast to Tornado Cash, such users *do not* maintain custody of their funds.¹⁹

The only non-autonomous features of Tornado Cash are entirely distinct from the core software that OFAC's sanctions target.²⁰ For instance, the DAO—or decentralized autonomous organization—relied upon by OFAC conducts “non-essential activities to support continued development” related to Tornado Cash.²¹ The DAO consists of anyone who holds “TORN” governance tokens—in other words, anyone who wants to be involved, for whatever duration they choose.²² It facilitates the creation of secondary Tornado Cash-related features (such as a front-end interface to make the pools easier to access) and compliance tools to aid law enforcement.²³ But contra OFAC, the DAO has nothing to do with the pools themselves. And the pools themselves would exist even if the DAO did not. The Tornado Cash software functions regardless of the DAO.

II. OFAC'S SANCTIONING OF TORNADO CASH IS UNLAWFUL.

OFAC's sanctions threaten to upend all this. With no forewarning, OFAC invoked its authority under Executive Orders 13,722 and 13,694, as amended, to sanction Tornado Cash. 87

¹⁸ Wade et al., *supra* note 13.

¹⁹ *Id.*

²⁰ *See generally id.* (explaining the various Tornado Cash-related addresses).

²¹ Peter Van Valkenburgh, *Tornado Cash Is No “Golem.” It’s a Tool for Privacy and Free Speech*, Coin Center (Oct. 26, 2022), <https://bit.ly/3KrYQLL>; *see also* David Shuttleworth, *What Is a DAO and How Do They Work?*, ConsenSys (Oct. 7, 2021), <https://bit.ly/3yYbpHB>.

²² Wade et al., *supra* note 13.

²³ Owen Fernau, *Tornado Cash Passes First Governance Proposal Since Sanctions* (Dec. 17, 2022), <https://bit.ly/3kexf5K>; *Tornado.cash Compliance*, Tornado Cash (June 3, 2020), <https://bit.ly/3xENcpc>.

Fed. Reg. 68,578, 68,579–80 (Nov. 15, 2022). Those Orders empower OFAC to sanction “persons” who have provided support to, respectively, the North Korean government or certain malicious cyber activities. 80 Fed. Reg. 18,077 (Apr. 2, 2015), *amended by* 82 Fed. Reg. 1 (Jan. 3, 2017); 81 Fed. Reg. 14,943 (Mar. 18, 2016). OFAC claimed it could lawfully sanction the Tornado Cash software protocol because the software had been used by money launderers affiliated with the North Korean government.²⁴ OFAC thus added the Tornado Cash smart contracts (*i.e.*, code) to a list of “individuals, groups, and entities” whose “assets are blocked and [whom] U.S. persons are generally prohibited from dealing with.”²⁵ This is the first time OFAC has ever attempted to sanction computer software, rather than focus on the bad actors that misuse it.²⁶

OFAC’s sanctions forbid Americans from interacting with the various Ethereum addresses that make up the Tornado Cash software, 87 Fed. Reg. at 68,578–79, under threat of six-figure civil fines and, for willful violations, up to 20 years’ imprisonment, 50 U.S.C. § 1705(b)–(c). The sanctions have stranded countless Americans who were holding funds in the Tornado Cash pools: these law-abiding citizens are no longer permitted to access their assets unless they obtain a discretionary special license from OFAC,²⁷ which is available only on a “case-by-case basis” with

²⁴ *Treasury Designates DPRK Weapons Representatives*, U.S. Dep’t of the Treasury (Nov. 8, 2022), <https://bit.ly/3EIWEkS>.

²⁵ *Specially Designated Nationals and Blocked Persons List (SDN) Human Readable Lists*, U.S. Dep’t of the Treasury, <https://bit.ly/3Z4MJYR> (last updated Apr. 11, 2023).

²⁶ Alex Thorn et al., *OFAC Sanctions Tornado Cash: Issues & Implications*, Galaxy (Aug. 10, 2022), <https://bit.ly/3IhYe8r>.

²⁷ *Frequently Asked Questions #1079*, U.S. Dep’t of the Treasury, <https://bit.ly/3KdJpFd> (last updated Nov. 8, 2022).

no estimate as to “how long this review might take.”²⁸ And Americans may violate the sanctions through no fault of their own: because blockchain technology allows peer-to-peer transfers from one wallet directly to another without requiring the recipient to consent to the transfer, Ethereum users can become liable—subject only to OFAC’s prosecutorial discretion—whenever someone transfers them digital assets via Tornado Cash.²⁹ In that situation, the person is trapped through no fault of their own—they have no ability to reject the funds and would commit an additional sanctions violation if they remitted the funds.

OFAC’s sanctions are unlawful. OFAC lacks statutory authority to sanction software like Tornado Cash, and regardless, its decision lacks any factual predicate that could render the sanctions lawful. This Court should vacate the sanctions.

A. OFAC’s Sanctions Exceed Its Authority.

OFAC’s sanctioning authority is circumscribed by Executive Orders 13,722 and 13,694 and the statutes those orders invoke. The orders authorize OFAC to designate “persons” for sanctioning pursuant to three statutes. The International Emergency Economic Powers Act, which both orders invoke, empowers the Executive to deal with national emergencies by blocking “transactions involving[] any property in which any foreign country or a national thereof has any interest.” 50 U.S.C. § 1702(a)(1). The North Korea-focused order invokes two further statutes, the United Nations Participation Act and the North Korea Sanctions and Policy Enhancement Act, as supplemental authority for blocking “person[s]” and “property.” 22 U.S.C. §§ 287c(a), 9214.

²⁸ *Frequently Asked Questions* #58, U.S. Dep’t of the Treasury (Sept. 10, 2002), <https://bit.ly/3MjYtnp>.

²⁹ *Frequently Asked Questions* #1078, U.S. Dep’t of the Treasury, <https://bit.ly/3nMvjD2> (last updated Nov. 8, 2022); *see, e.g.,* Mat Di Salvo, *Tornado Cash User ‘Dusts’ Hundreds of Public Wallets—Including Celebs Jimmy Fallon, Steve Aoki and Logan Paul*, Decrypt (Aug. 9, 2022), <https://bit.ly/3Ij9m5d>.

But the autonomous Tornado Cash software is not “property”—much less the “property” of the nonexistent Tornado Cash “person.” There is thus no statutory basis for OFAC’s sanctions.

1. Foremost, the autonomous Tornado Cash software is not “property.” To be property, an item must be a thing that is owned. Courts³⁰ and dictionaries³¹ have both recognized this capacity as a defining characteristic of property. OFAC’s own regulations confirm the point: all the examples of “property” it enumerates as illustrative are items belonging to individuals or entities and any “other property” must be construed to share this critical feature. 31 C.F.R. §§ 510.323, 578.314; *see Prytania Park Hotel, Ltd. v. Gen. Star Indem. Co.*, 179 F.3d 169, 179 (5th Cir. 1999) (applying the *ejusdem generis* canon to an illustrative list).

Here, the autonomous Tornado Cash software is not and cannot be owned by anyone, much less by the Tornado Cash “person” conjured by OFAC. With the 2020 update making the code for the pools permanent and unalterable, no one can exercise any “dominion” or other essential indicia of ownership over them.³² No one person or group has the right to possess the software, or the ability to transfer the ownership to any other person or group. The Tornado Cash software protocol is simply a feature affixed to the Ethereum ecosystem, much as immutable features in the real-world ecosystem—like sun or wind—can be harnessed but not owned. And to the extent that individuals associated with Tornado Cash might have had a property interest in the pools at some earlier point, those individuals permanently abandoned it with the 2020 update. *Cf. Cerajeski v.*

³⁰ *E.g.*, *United States v. Blagojevich*, 794 F.3d 729, 736 (7th Cir. 2015); *Haze El Bey Express Tr. v. Hill*, No. 20-cv-3516, 2021 WL 3829162, at *3 (S.D. Tex. Apr. 22, 2021).

³¹ *E.g.*, *Property*, Oxford English Dictionary (2d ed. 1989); *Property*, Webster’s New World Dictionary of the American Language (college ed. 1968); *Property*, Webster’s Third New International Dictionary (1961).

³² *See Property*, Black’s Law Dictionary (5th ed. 1979) (defining “property” as including the rights to possess, use, exclude, and transfer).

Zoeller, 735 F.3d 577, 581 (7th Cir. 2013) (“‘Abandonment’ in property law ... means that the owner gives up all claims to the property, thus pitching it back into the public domain, where it is available for reappropriation.”). The Tornado Cash software thus exists entirely independent of any person or group, and so OFAC cannot sanction it as anyone’s “property.”

2. Nor is Tornado Cash a “person” under any reasonable understanding of the term. OFAC’s regulations define a legal person as “an individual or entity.” 31 C.F.R. §§ 510.322, 578.313. Tornado Cash—software—is neither.

OFAC’s assertion that it has sanctioned a Tornado Cash “entity” that purportedly owns the autonomous software likewise does not withstand scrutiny—not only because nobody “owns” that software as detailed above, but also because there is no Tornado Cash “entity” regardless. An entity is “a partnership, association, trust, joint venture, corporation, group, subgroup, or other organization.” *Id.* §§ 510.305, 578.305. In other words, it is a body with a “separate and distinct existence,” an “organization ... that has an identity separate from those of its members.”³³ But the “entity” that OFAC proffers is a supposed “Tornado Cash organization” composed of the software developers who coded the smart contracts and the Tornado Cash DAO which, as explained above, has no ability to affect the code in any way.³⁴ That is not a group with the requisite “separate and distinct existence.”

Outside of OFAC’s own lumping, there is no indication that these discrete actors share any sort of “organizational structure.”³⁵ For example, there is no contemporaneous evidence proving

³³ *Entity*, Merriam-Webster.com, <https://bit.ly/3XLLxst> (last visited Apr. 11, 2023).

³⁴ *Frequently Asked Questions #1095*, U.S. Dep’t of the Treasury (Nov. 8, 2022), <https://bit.ly/3zSNV7n>. OFAC defines the developers to include both the Tornado Cash “founders” and others who have aided in the development of Tornado Cash. *Id.*

³⁵ *Id.*

the existence of such an organization; pointing to any kind of contractual relationship between the developers and DAO; or suggesting that the public perceived them as intertwined. An organization cannot exist merely on OFAC's say-so. Thus, even if identifying an entity associated with Tornado Cash sufficed under the statute—which it does not—OFAC has not done even that.

B. Any Statutory Doubt Must Be Resolved Against OFAC.

OFAC clearly exceeded its authority for the reasons discussed above, but the Plaintiffs need not prove that much to prevail. Under fundamental principles of statutory interpretation, the Court should resolve any ambiguity against OFAC.

1. To start, the major-questions doctrine establishes that OFAC's powers here should be narrowly construed. That doctrine requires an agency to identify a clear congressional statement before it can “bring about an enormous and transformative expansion in [its] regulatory authority.” *Util. Air Regul. Grp. v. EPA*, 573 U.S. 302, 324 (2014). This case would effect such an expansion because OFAC's sanctions depend on re-interpreting the core terms in OFAC's authorizing statutes—“persons” and “property”—to go far beyond any traditional or recognizable definition of those terms to give OFAC near-boundless authority. Although this arrogation most immediately affects digital assets—alone a trillion-dollar industry³⁶—OFAC's claim of sweeping authority is equally applicable to any or all other industries. Absent clear congressional authorization, this power-grab must fail.

2. OFAC's powers likewise should be narrowly construed as a matter of constitutional avoidance. Courts must interpret ambiguous statutory language in a way that avoids “serious doubt[s]” about a statute's constitutionality if it is “fairly possible” to do so. *Nielsen v. Preap*, 139

³⁶ Marcel Pechman, *Total Crypto Market Cap Rises Above \$1T—Data Suggests More Upside Is In Store*, Cointelegraph (Jan. 27, 2023), <https://bit.ly/3Z2iuBS>.

S. Ct. 954, 971 (2019) (quotation marks omitted). And the Tornado Cash sanctions raise at least two serious constitutional conflicts.

First, the sanctions cannot withstand First Amendment scrutiny. Because they indiscriminately target both bad actors and law-abiding Tornado Cash users, the sanctions “burden substantially more” speech and association “than is necessary to further the government’s ... interests.” *Ward v. Rock Against Racism*, 491 U.S. 781, 799 (1989); *cf. Green v. Miss USA, LLC*, 52 F.4th 773, 800 n.25 (9th Cir. 2022). Here, the government could have directly sanctioned the North Korea groups that misuse Tornado Cash, just as it has sanctioned malign digital asset users on other occasions.³⁷ Instead, it has attempted to categorically sanction a software those groups misuse. In the process—and apparently, intentionally³⁸—OFAC has cut ordinary Americans off from a means of engaging in anonymous financial speech and associations. That overbroad choice unconstitutionally chills First Amendment rights.

Second, OFAC’s sanctions cannot be squared with the Due Process Clause of the Fifth Amendment, which bars the deprivation of property without due process of law. The amount of process required depends on a balancing of interests, but the government generally must provide individuals “notice and an opportunity to be heard before depriving them of their property.” *Zevallos v. Obama*, 793 F.3d 106, 116 (D.C. Cir. 2015). Here, OFAC provided *zero* pre-

³⁷ Thorn et al., *supra* note 26.

³⁸ See Scott Chipolina & James Politi, *US Treasury Imposes Sanctions on ‘Crypto Mixer’ Over Alleged Laundering*, Fin. Times (Aug. 8, 2022), <https://bit.ly/3XJqGG7> (quoting a “senior Treasury official” as saying that the sanctions were to ““send a really critical message”” against services like Tornado Cash and ““designed to inhibit Tornado Cash or any sort of reconstituted versions of it””).

deprivation notice before sanctioning Tornado Cash and instead blocked all American Tornado Cash users from accessing their funds.³⁹

There was no cause for that denial of notice. Although courts often uphold sanctions imposed without pre-deprivation notice based on a fear of asset flight, *see Al Haramain Islamic Found., Inc. v. U.S. Dep't of Treasury*, 686 F.3d 965, 985 (9th Cir. 2012), that rationale has no force here. Because the Tornado Cash pools are immutable and the Tornado Cash software does not maintain custody or control over the assets held in the pools, these assets cannot be frozen the way money in a bank can be. And because the pools remain available for all to use, the targeted North Korean wrongdoers *are not actually blocked from retrieving their assets*.⁴⁰ Only law-abiding American users are thwarted by their respect for the law.

3. The rule of lenity further confirms that a narrower interpretation is necessary. This rule ensures that “legislatures and not courts ... define criminal activity,” *United States v. Bass*, 404 U.S. 336, 348 (1971), by requiring that ambiguous provisions be construed in favor of criminal defendants, *Lockhart v. United States*, 577 U.S. 347, 361 (2016). The rule applies to any “statute with criminal sanctions,” even in cases that arise in a “noncriminal context,” *Kasten v. Saint-Gobain Performance Plastics Corp.*, 563 U.S. 1, 16 (2011), because any statute must be “interpret[ed] ... consistently” across cases, *Leocal v. Ashcroft*, 543 U.S. 1, 11 n.8 (2004). Accordingly, because OFAC’s authorizing statutes criminally proscribe the “willful[]” violation of sanctions, *see* 22 U.S.C. §§ 287c(b), 9214(f); 50 U.S.C. § 1705(c), any ambiguity about the scope of what is sanctionable must be narrowly construed.

³⁹ *Frequently Asked Questions #1079*, *supra* note 27.

⁴⁰ *See* Tim Hakki, *BitKeep Hacker Moves \$1M in Binance Coin Through Tornado Cash*, Decrypt (Oct. 18, 2022), <https://bit.ly/3xIALIF>; *Tornado Cash Mixer Sanctioned After Laundering Over \$1.5 Billion*, Elliptic (Aug. 8, 2022), <https://bit.ly/3FTdNDa>.

C. OFAC's Sanctions Are Arbitrary and Ill-Conceived.

Finally, OFAC's sanctions are "not in accordance with law" for yet another reason: the sanctions are arbitrary and capricious. Am. Compl. ¶ 86 (quoting 5 U.S.C. § 706(2)(A)). Although the Plaintiffs have focused on the sanctions' manifold other problems, this Court may also consider the arbitrariness of the sanctions. *See Corrosion Proof Fittings v. EPA*, 947 F.2d 1201, 1208 (5th Cir. 1991); *cf. Perry Cap. LLC v. Lew*, 70 F. Supp. 3d 208, 225–26 (D.D.C. 2014) (describing plaintiffs' statutory arguments as "merely extensions" of their arbitrary-and-capricious arguments), *rev'd in part on other grounds*, 864 F.3d 591 (D.C. Cir. 2017). OFAC's Tornado Cash sanctions are arbitrary for at least two reasons.

1. The sanctions "lack[] a limiting principle." *United States v. Reynolds*, 710 F.3d 498, 510 (3d Cir. 2013); *cf. Stewart v. Azar*, 366 F. Supp. 3d 125, 154 (D.D.C. 2019). OFAC assertedly designated Tornado Cash because it has been "used by" North Korean actors for nefarious purposes.⁴¹ But on this view, *anything* that a malign foreign actor happens to misappropriate risks being sanctioned. After all, any tool can be misappropriated—even if its primary uses are entirely innocuous, as here. OFAC's logic thus has no discernible endpoint.

OFAC's theory would suggest, for example, that a social-media website could be sanctioned merely because foreign trolls have used it to facilitate unlawful activities. By the logic of the Tornado Cash sanctions, OFAC could find that such a website—which would be foreign insofar as it is partially owned by foreign shareholders—has "materially assisted" in "[a]ctions ... that undermine democratic processes or institutions in Ukraine," or in some other trigger for sanctions, because trolls have misused the site for that purpose. 31 C.F.R. § 589.201(a)(1)(i), (iv). OFAC's logic likewise suggests that it could sanction an open-source encryption protocol—

⁴¹ *Treasury Designates DPRK Weapons Representatives*, *supra* note 24.

website coding that allows Americans to securely use their credit cards or other personal information online—merely because the protocol was developed by a foreigner and misused by a malign actor, no matter the proportion of uses that are entirely benign. Such possibilities are absurd, and a justification that “would create patently absurd results” is necessarily arbitrary and capricious. *Schneider v. Wis. UFCW Unions & Emps. Health Plan*, 985 F. Supp. 848, 851 (E.D. Wis. 1997).

2. Further, OFAC has violated a “central principle of administrative law” by departing from longstanding practice without explanation. *Am. Wild Horse Pres. Campaign v. Perdue*, 873 F.3d 914, 923 (D.C. Cir. 2017). Indeed, OFAC has not even shown “awareness that it is changing position.” *FCC v. Fox Television Stations, Inc.*, 556 U.S. 502, 515 (2009). Specifically, OFAC’s long-held position—repeated even in the announcement of the Tornado Cash sanctions—is that “[t]he ultimate goal of sanctions is ... to bring about a positive change in behavior.”⁴² But any hypothetical Tornado Cash entity cannot “bring about a positive change in behavior” vis-à-vis the Tornado Cash software, because—again—that software and the pools it autonomously operates are immutable and not controlled by any hypothetical entity.⁴³ There is simply no mechanism for any Tornado Cash developer or DAO member to change or shutter it. To the extent OFAC ignored this reality, it acted arbitrarily by failing to provide a “reasoned explanation” for its newly expanded view of how sanctions should be employed. *Id.* And to the extent OFAC was unaware of this reality, it arbitrarily “failed to consider an important aspect of the problem.” *Motor Vehicle*

⁴² *Id.*

⁴³ Brad Bourque, *OFAC’s Tornado Sanctions and the Problem of Immutability*, Fordham J. Corp. & Fin. L. (Oct. 30, 2022), <https://bit.ly/3yViJns>.

Mfrs. Ass'n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29, 43 (1983). Either way, its sanctions fail for that reason too.

CONCLUSION

OFAC's sanctions cannot be squared with a proper understanding of the autonomous Tornado Cash software, OFAC's governing statutes, or OFAC's obligations under the APA. If allowed to stand, this overreach will have sweeping consequences—weakening the digital asset industry, jeopardizing law-abiding Americans' financial privacy, and effecting a vast expansion of OFAC's power. This Court should thus declare the sanctions unlawful and enjoin their enforcement.

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Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that on April 12, 2023, the foregoing document was filed through the Court's ECF system and a copy will be served on all parties according to the Federal Rules of Civil Procedure.

/s/ Jonathan Guynn
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