

No. 23-13698

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UNITED STATES COURT OF APPEALS FOR THE ELEVENTH CIRCUIT

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COIN CENTER, ET AL.,

*Plaintiffs-Appellants,*

v.

SECRETARY, U.S. DEPARTMENT OF THE TREASURY,

*Defendants-Appellees,*

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Appeal from the United States District Court for the Northern District of Florida,  
T. Kent Wetherell II, U.S. District Judge  
No. 3:22-cv-20375

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**BRIEF OF *AMICUS CURIAE* BLOCKCHAIN ASSOCIATION IN  
SUPPORT OF APPELLANTS AND REVERSAL**

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**CERTIFICATE OF INTERESTED PERSONS AND  
CORPORATE DISCLOSURE STATEMENT (CIP)**

Pursuant to Federal Rule of Appellate Procedure 26.1 and Eleventh Circuit Rule 26.1-1, 26.1-2, and 26.1-3, the Blockchain Association states that it is a nonprofit organization organized under the laws of the District of Columbia. It has no parent corporation and no publicly held company owns ten percent or more of its stock. In addition to the interested persons identified in the Plaintiffs-Appellants’ opening brief and the amicus brief of Andreessen Horowitz, the Blockchain Association provides the following list of interested persons and Corporate Disclosure Statement:

1. Blockchain Association – *Amicus Curiae*
2. Jones Day – Counsel for *Amicus Curiae* Blockchain Association
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Besides those listed above and in the above-referenced briefs, *amicus* is aware of no other persons who have or may have an interest in the outcome of this case.

December 22, 2023

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### INTEREST OF *AMICUS CURIAE*

*Amicus curiae*, the Blockchain Association, is the leading nonprofit membership organization dedicated to promoting a pro-innovation policy environment for digital assets. *Amicus* endeavors to achieve regulatory clarity and to educate policymakers, regulators, courts, and the public about how blockchain technology can pave the way for a more secure, competitive, and consumer-friendly digital marketplace. It represents more than 100 member companies that reflect the diversity of the dynamic blockchain industry, including software developers, infrastructure providers, exchanges, custodians, investors, and others supporting the public blockchain ecosystem.

The Office of Foreign Assets Control (“OFAC”) decision to sanction Tornado Cash—privacy-protecting software used on the Ethereum blockchain—raises serious regulatory and constitutional questions with important implications for the blockchain ecosystem and the digital asset economy. *Amicus* submits this brief to assist the Court in understanding blockchain technology and the serious legal problems posed by the Tornado Cash sanctions.

In doing so, *amicus* certifies that no party’s counsel authored this brief in whole or in part; no party or party’s counsel contributed money intended to fund the preparation or submission of this brief; and no person—other than *amicus*, its members, or its counsel—contributed money intended to fund the preparation or

submission of this brief. *See* Fed. R. App. P. 29(a)(4)(E). All parties have consented to the filing of this brief.

### STATEMENT OF THE ISSUES

1. Whether the district court erred in holding that OFAC acted consistent with its statutory authority in sanctioning Tornado Cash.

2. Whether the district court erred in holding that OFAC’s sanctions were not arbitrary and capricious.

### SUMMARY OF ARGUMENT

In upholding the Office of Foreign Assets Control’s sanctions of Tornado Cash, the District Court repeated OFAC’s mistakes—misunderstanding what Tornado Cash is, overestimating the breadth of OFAC’s sanctioning authority, and endorsing arbitrary and capricious agency action. OFAC’s authorizing statutes permit it to block access to Tornado Cash—self-executing computer software available on the Ethereum blockchain—only if Tornado Cash is property in which a sanctioned foreign person has a cognizable interest.<sup>1</sup> But Tornado Cash is not property belonging to any person, much less property giving rise to a cognizable interest, and OFAC’s justification for its sanctions was arbitrary regardless.

As a result, Americans continued to be wrongly denied access to what was

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<sup>1</sup> Throughout this brief, *amicus* uses “Tornado Cash” as a shorthand for the immutable smart contracts sanctioned by OFAC.

previously the most popular privacy-protecting tool on Ethereum, the world’s second-largest public blockchain.<sup>2</sup> And Tornado Cash is just that—an autonomous tool. This software has no owner or operator, and it 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* Am. Compl. ¶ 81.

As free-standing software, the Tornado Cash computer code cannot be blocked under the statutes that OFAC has invoked. To the extent this leaves OFAC disempowered, the proper remedy is to seek legislation from Congress that would provide supplemental authority in the uniquely decentralized digital asset context—as the Treasury Department is currently doing.<sup>3</sup> Allowing OFAC to improperly stretch its existing authorities would be a slippery slope that could threaten all manner of internet-based tools that have heretofore been freely available. This Court

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<sup>2</sup> *See* George Kaloudis & Edward Oosterbaan, *How Popular Are Crypto Mixers? Here’s What the Data Tells Us*, CoinDesk (last updated Sept. 19, 2023), <https://bit.ly/3Xb0iok>; *Today’s Cryptocurrency Prices by Market Cap*, CoinMarketCap, <https://bit.ly/3IFcoSs> (last visited Dec. 21, 2023).

<sup>3</sup> *See Remarks by Deputy Secretary of the Treasury Wally Adeyemo at the 2023 Blockchain Association’s Policy Summit*, U.S. Dep’t of the Treasury (Nov. 29, 2023), <https://bit.ly/4afF7ZW> (“we cannot rely on statutory definitions that are decades-old to address the illicit finance risks in 2023”); *Potential Options to Strengthen Counter-Terrorist Financing Authorities*, U.S. Dep’t of the Treasury (Nov. 28, 2023), <https://bit.ly/48tJ8Zf> (proposing the creation of “explicit IEEPA authority to designate blockchain nodes or other elements of cryptocurrency transactions”).

should reverse the District Court's grant of summary judgment to OFAC and direct judgment for the Plaintiffs.

## ARGUMENT

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

Americans today use 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.<sup>4</sup> And it is not hard to see why: public blockchain networks utilize blockchain technology as a decentralized, internet-based alternative to perform the communication and settlement functions necessary for transfers of data, thus freeing users from the multitude of third-party middlemen familiar to traditional finance, like banks and payment processors, and even from fiat currencies.<sup>5</sup> This freedom is not only more efficient and less expensive than legacy systems, but it also allows users to regain the power and ownership taken away from them by intermediaries.<sup>6</sup> In doing so, it creates a valuable alternative for the millions

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<sup>4</sup> *Cryptocurrency Perception Study*, Morning Consult (Feb. 24, 2023), <https://bit.ly/3FUayeO>.

<sup>5</sup> *See generally What Is Cryptocurrency?*, Coinbase, <https://bit.ly/3lSamp7>.

<sup>6</sup> *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>.

of Americans who are “unbanked” or “underbanked” by the world’s increasingly powerful traditional financial institutions, and anyone else who wishes to have more control over their financial life.<sup>7</sup>

In considering this appeal, two points about this emerging technology are critical. *First*, as detailed below, people conduct digital asset transactions through a public “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 all other network participants. *Second*, before OFAC intervened, 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 all transfers of data. *See, e.g.*, Appellants’ Br. 3. But unlike a bank’s ledger—which is private, modifiable, and subject to the bank’s control—blockchains like Ethereum are public, permanent, permissionless, and maintained through a decentralized network of

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<sup>7</sup> 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>.

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. *See id.*

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, transactions are all pseudonymous: they are associated with “[p]ublic keys” (as opposed to password-like “[p]rivate keys”) that may be under the control of specific persons or represent autonomous software controlled by no one (*e.g.*, a smart contract).<sup>8</sup> 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.<sup>9</sup> 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 or all of their transactions, any time a user engages in a transaction with a known

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<sup>8</sup> Kirsty Moreland, *What Are Public Keys Vs Private Keys?*, Ledger Academy (last updated July 12, 2023), <https://bit.ly/3RvGsU6>.

<sup>9</sup> *Id.*

counterparty—such as an employee paid partially through digital assets<sup>10</sup>—the user is making available 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’ identities can sometimes be involuntarily disclosed (or “doxxed”) when complete strangers are able to deduce their real-world identities based on their transaction patterns or other public information.<sup>11</sup>

To avoid broadcasting their financial histories 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 a store could view every purchase that its customers ever made based on a single payment, random bystanders could view the transactions on every consumer’s credit-card statements, or employers could see exactly how employees spent their salaries. There are, in other words, perfectly reasonable bases 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

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<sup>10</sup> Cloey Callahan, *Here’s How Some Employees Are Being Paid in Cryptocurrencies*, WorkLife (Sept. 2, 2022), <https://bit.ly/4040SXg>.

<sup>11</sup> Adam Ludwin, *How Anonymous Is Bitcoin?*, Coin Center (Jan. 22, 2015), <https://bit.ly/3Slll6Y>.



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.<sup>12</sup>

Moreover, the need for privacy is heightened for certain, particularly sensitive transactions. Digital asset users often prioritize anonymity when supporting politically charged causes, for fear of reprisal by their government or others.<sup>13</sup> For example, one of the plaintiffs in this case has stopped facilitating digital asset donations to support Ukrainian relief efforts, for fear that he and other like-minded donors will be targeted by Russian agents and state-sponsored hackers. Am. Compl. ¶ 49. 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 crowdfunding expenses for their recovery.<sup>14</sup> Without privacy, users may feel

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<sup>12</sup> Andrew R. Chow, *A New U.S. Crackdown Has Crypto Users Worried About Their Privacy*, TIME (Aug. 10, 2022), <https://bit.ly/3kcSwNo>.

<sup>13</sup> Zachary Halaschak, *Canadian Crackdown on Truckers Highlights Privacy Benefits of Cryptocurrency*, Wash. Examiner (Feb. 24, 2022), <https://bit.ly/42tU1rw>.

<sup>14</sup> 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 (last updated

forced to forgo transactions like these. *E.g., id.* ¶¶ 46–49.

**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: it served as the most popular privacy tool on Ethereum, facilitating about \$8 billion in total transactions.<sup>15</sup> 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* Appendix, ECF Doc. 14-1, at 172.

Tornado Cash is composed of strings of open-source code that independent developers have published to Ethereum. *See* Am. Compl. ¶¶ 1, 9–10. It operates autonomously via “smart contracts” that are programmed to self-execute certain actions when prompted by Ethereum users. *See* Appellants’ Br. 4–5. Each smart contract is assigned a public address, similar to a user’s public key, with which any user can engage. *See id.* The core Tornado Cash smart contracts are known as “pools,” which are simply code protocols through which users can route digital asset

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Sept. 13, 2021), <https://bit.ly/3lhWmfV>.

<sup>15</sup> *See* Nicholas Weigel, *Tornado Cash Litigation Update*, Lawfare (May 11, 2023), <https://bit.ly/48boX2n>; *cf. Tornado Cash Alternatives*, Elliptic (Oct. 11, 2022), <https://bit.ly/3U2FuzD> (comparing Tornado Cash with its much-smaller competitors).

deposits and withdrawals.<sup>16</sup> The pools are programmed to automatically generate, upon a deposit, a randomized key through which the depositing user can later withdraw funds.<sup>17</sup> 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.<sup>18</sup> In other words, thanks to the unique power of blockchain technology, no one 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 can 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.<sup>19</sup>

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<sup>16</sup> Alex Wade et al., *How Does Tornado Cash Work?*, Coin Center (Aug. 25, 2022), <https://bit.ly/3Z0Qnnf>.

<sup>17</sup> *Id.*

<sup>18</sup> *Id.*

<sup>19</sup> *Id.*

These features distinguish the Tornado Cash *software*—which is non-custodial and fully autonomous—from privacy *services* owned or operated by persons or entities.<sup>20</sup> These latter services (unlike autonomous software) facilitate privacy by taking control of users’ funds to shuffle them with other users’ funds.<sup>21</sup> And in contrast to Tornado Cash, such users *do not* maintain custody of their funds.<sup>22</sup>

The non-autonomous features of Tornado Cash are entirely distinct from the core privacy-protecting software.<sup>23</sup> For instance, the DAO—or decentralized autonomous organization—cited by OFAC conducts “non-essential activities to support continued development” related to Tornado Cash.<sup>24</sup> The DAO consists of anyone who holds “TORN” governance tokens.<sup>25</sup> It facilitates the creation of secondary Tornado Cash-related features, such as a “Relayer Registry” that helps

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<sup>20</sup> 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>.

<sup>21</sup> Wade et al., *supra* note 16.

<sup>22</sup> *Id.*

<sup>23</sup> *See generally id.* (explaining the various Tornado Cash-related addresses).

<sup>24</sup> 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>.

<sup>25</sup> Wade et al., *supra* note 16.

Tornado Cash users find “relayers”—*i.e.*, persons acting as conduits who can help process users’ withdrawals from the Tornado Cash pools, so as to maximize users’ privacy.<sup>26</sup> But the registry offers an entirely *optional* function; Tornado Cash users can make full use of the pools through non-registered relayers or without any relayers at all. *See* Appellants’ Br. 7–8. So contra OFAC, the DAO and its non-essential services are entirely distinct from the pools themselves. That core Tornado Cash software exists and functions regardless of the DAO, which could not “turn off” the protocol even if it wanted to.

## II. THE TORNADO CASH SANCTIONS ARE UNLAWFUL.

OFAC’s sanctions have upended the lawful use and utility of Tornado Cash for its many users. With no forewarning, OFAC invoked its authority under Executive Orders 13,722 and 13,694, as amended, to sanction Tornado Cash. 87 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 and 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 target the Tornado Cash software protocol because the software had been used by money launderers affiliated with the North

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<sup>26</sup> *Id.*

Korean government.<sup>27</sup> OFAC thus added the Tornado Cash smart contracts (*i.e.*, software code) as a collective to a list of “individuals, groups, and entities” whose “assets are blocked and [whom] U.S. persons are generally prohibited from dealing with.”<sup>28</sup> This is the first time OFAC has ever attempted to sanction free-standing computer software, rather than focus on the bad actors that misuse it.<sup>29</sup>

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,<sup>30</sup> which is available only on a “case-by-case basis” with no estimate as to “how long this review might take.”<sup>31</sup> And

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<sup>27</sup> *Treasury Designates DPRK Weapons Representatives*, U.S. Dep’t of the Treasury (Nov. 8, 2022), <https://bit.ly/3EIWEkS>.

<sup>28</sup> *Specially Designated Nationals and Blocked Persons List (SDN) Human Readable Lists*, U.S. Dep’t of the Treasury, <https://bit.ly/3Z4MJYR> (last updated Dec. 20, 2023).

<sup>29</sup> Alex Thorn et al., *OFAC Sanctions Tornado Cash: Issues & Implications*, Galaxy (Aug. 10, 2022), <https://bit.ly/3IhYe8r>.

<sup>30</sup> *Frequently Asked Questions #1079*, U.S. Dep’t of the Treasury, <https://bit.ly/3KdJpFd> (last updated Nov. 8, 2022).

<sup>31</sup> *Frequently Asked Questions #58*, U.S. Dep’t of the Treasury (Sept. 10,

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.<sup>32</sup> 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. Because OFAC lacks statutory authority to block software like Tornado Cash, it has acted “in excess of statutory jurisdiction, authority, or limitations, or short of statutory right.” 5 U.S.C. § 706(2)(C). And compounding the problem, OFAC has justified its overreach with reasoning that is arbitrary and capricious in violation of the Administrative Procedure Act. *Id.* § 706(2)(A). This Court should reverse the decision below.

#### **A. OFAC’s Sanctions Exceed Its Statutory 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

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2002), <https://bit.ly/3MjYtnp>.

<sup>32</sup> *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>.

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)(B). 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. But the autonomous Tornado Cash software is not “property”—much less “property” in which any Tornado Cash “person” has a cognizable “interest.” There is thus no statutory basis for OFAC’s sanctions.

### **1. The Autonomous Tornado Cash Software Is Not “Property.”**

To be property, an item must be a thing that is owned. Courts<sup>33</sup> and dictionaries<sup>34</sup> have both recognized this capacity as a defining characteristic of property. And OFAC’s regulatory definition of “property” embraces the term’s ordinary meaning: the regulations simply provide a list of illustrative examples, all

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<sup>33</sup> *E.g.*, *United States v. Blagojevich*, 794 F.3d 729, 736 (7th Cir. 2015); *Haze El Bey Express Tr. v. Hill*, No. 4:20-cv-3516, 2021 WL 3829162, at \*3 (S.D. Tex. Apr. 22, 2021).

<sup>34</sup> *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).



of which are items typically understood as belonging to individuals or entities, followed by a catch-all for “any other property.” 31 C.F.R. §§ 510.323, 578.314. Under the canons of *noscitur a sociis* and *ejusdem generis*—which respectively establish that “a word is known by the company it keeps” and that a general catch-all following specific enumerated examples should be “construed to embrace only objects similar in nature to those objects enumerated by the preceding specific words”—the Tornado Cash software can fall into OFAC’s definition of “property” only if the software shares this critical feature of ownership. *See Yates v. United States* 574 U.S. 528, 545 (2015) (plurality op.).

Here, the core Tornado Cash software is not and cannot be owned by anyone. 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.<sup>35</sup> No one person or group has the right to possess the software, or the ability to transfer ownership to any other person or group. The Tornado Cash software protocol is simply a feature affixed to the Ethereum ecosystem, much as any other immutable feature—like sun or wind in nature—can be harnessed but not owned. The Tornado Cash software thus exists entirely independent of any person or group, and so it is not “property” that OFAC can sanction.

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<sup>35</sup> *See Property*, Black’s Law Dictionary (5th ed. 1979) (defining “property” as including the rights to possess, use, exclude, and transfer).

## 2. OFAC Has Not Identified Any Cognizable “Interest” in Tornado Cash.

Because the Tornado Cash software is not “property,” it also is not “property” in which any Tornado Cash “person”<sup>36</sup> can have an “interest” that could justify sanctioning the software. At most, OFAC can establish that individuals associated with Tornado Cash—such as the developers who originally programmed the pools—might once have had a cognizable property interest in them. But that does not bear on whether anyone has a cognizable interest *now*. “Abandonment” is a core concept in property law, through which an owner can “give[] up all claims to the property, thus pitching it back into the public domain, where it is available for reappropriation.” *Cerajeski v. Zoeller*, 735 F.3d 577, 581 (7th Cir. 2013). This concept applies to software just as in other contexts, *see, e.g., Wyatt Tech. Corp. v. Malvern Instruments Inc.*, No. CV 07-08298, 2009 WL 2365647, at \*12–13 (C.D. Cal. July 29, 2009), and the 2020 conversion of Tornado Cash to be fully autonomous constitutes a paradigmatic, permanent act of abandonment.

The District Court erred in glossing over the issue of abandonment. It rejected the Plaintiffs’ abandonment argument, finding the “TORN holders (including the

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<sup>36</sup> It also is questionable whether OFAC has properly identified a Tornado Cash “person” to sanction, as the purportedly sanctioned “person” is a supposed “organization” consisting of Tornado Cash’s founders, developers, and DAO. *Frequently Asked Questions #1095*, U.S. Dep’t of the Treasury (Nov. 8, 2022), <https://bit.ly/3zSNV7n>. There is no contemporaneous evidence establishing that these disparate actors were part of any unified organization.

Tornado Cash founders, developers, and DAO)” to have retained an “indirect beneficial ‘interest’” in the Tornado Cash software, on the theory that increased use of the software makes TORN more valuable. *See Coin Center v. Yellen*, No. 3:22-cv-20375, 2023 WL 7121095, at \*6 (N.D. Fla. Oct. 30, 2023). But whether abandonment has occurred is a question of intent, *see Katsaris v. United States*, 684 F.2d 758, 761–62 (11th Cir. 1982), a question the district court ignored. And the 2020 update constitutes a clear manifestation of intent to “pitch[] [Tornado Cash] back into the public domain.” *Cerajeski*, 735 F.3d at 581.

Tellingly, in rejecting the abandonment argument, the District Court never identified any “interest” held by OFAC’s asserted Tornado Cash *entity*. Rather, it identified an “interest” purportedly held by all TORN holders—a group that it asserts encompasses not just the members of the supposed Tornado Cash organization, but anyone else who has purchased TORN tokens. *Coin Center*, 2023 WL 7121095, at \*6. But even if this interest were legally cognizable (it is not, as explained below), a TORN holder’s interest in the use of the Tornado Cash software could arguably establish at most only that Tornado Cash’s founders, developers, and DAO each have an interest in their *individual* capacities. And any such individual interest is irrelevant, as OFAC has sanctioned them only in their capacity as a collective

“organization[.]”<sup>37</sup> See *SEC v. Chenery Corp.*, 318 U.S. 80, 87 (1943) (“The grounds upon which an administrative order must be judged are those upon which the record discloses that its action was based.”).

Regardless, the District Court’s “indirect beneficial ‘interest’” theory does not hold water. Rather than suggesting that any Tornado Cash “person” holds a “‘property interest’ or ‘ownership interest’ in the technical legal sense,” the District Court asserted only that TORN holders continue to benefit from Tornado Cash because the success of the software increases the value of the tokens. *Coin Center*, 2023 WL 7121095, at \*5–6. But the law properly distinguishes between intended and incidental beneficiaries, such that the term “beneficial interest” covers only those with a “right” or “expectancy” in the property at issue, as opposed to anyone who happens to benefit as a *de facto* matter.<sup>38</sup> Here, OFAC has not shown that its asserted Tornado Cash organization intentionally preserved any such “rights” or “expectancies” when converting Tornado Cash into open-access software. And it would be absurd to allow OFAC to impose sanctions absent such a showing: taken to its logical conclusion, the District Court’s opinion would allow OFAC to sanction anything so long as a sanctioned person derives positive externalities from it.

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<sup>37</sup> *Id.* (“OFAC has not designated Tornado Cash’s individual founders, developers, [or] members of the DAO ... at this time.”).

<sup>38</sup> See *Interest*, Black’s Law Dictionary (11th ed. 2019).

**B. Any Statutory Doubt Must Be Resolved Against OFAC.**

OFAC exceeded its statutory authority for the reasons discussed above, but the Plaintiffs need not prove as much to prevail. Under fundamental principles of statutory interpretation—whether the major-questions doctrine, the constitutional-avoidance canon, or the rule of lenity—this Court should resolve any ambiguity against OFAC. Courts regularly apply such doctrines in cases with national security implications, and this Court should do the same here. *See, e.g., Boumediene v. Bush*, 553 U.S. 723, 787–92 (2008).

**1. The Major-Questions Doctrine Requires That OFAC’s Authority Be Construed Narrowly.**

The major-questions doctrine establishes that OFAC’s powers here should be construed narrowly. 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—such as “property” and “interest”—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—a trillion-dollar industry—OFAC’s claim of sweeping authority sets a precedent that would be equally applicable to any or all other industries. Absent clear congressional authorization,

this power-grab must fail.

## **2. The Constitutional-Avoidance Canon Also Requires That OFAC's Authority Be Construed Narrowly.**

OFAC's powers likewise should be construed narrowly 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 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. As the Plaintiffs explain, Tornado Cash users have a First Amendment interest in choosing the vehicles through which they donate to show support of their favored causes. *See* Appellants' Br. 46–47. Because the sanctions take away this choice—indiscriminately targeting both bad actors and law-abiding Tornado Cash users—they "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 Korean groups that misuse Tornado Cash, just as it has sanctioned malign digital asset users on other

occasions.<sup>39</sup> Instead, it has attempted to categorically sanction a software those groups misuse. In the process—and apparently, intentionally<sup>40</sup>—OFAC has cut ordinary Americans off from a means of engaging in anonymous financial speech and associations. That overbroad choice is impermissible, notwithstanding the alternative methods of speech and association that may exist: “[t]he risk of a chilling effect ... is enough, because First Amendment freedoms need breathing space to survive.” *Ams. for Prosperity Found. v. Bonta*, 141 S. Ct. 2373, 2389 (2021) (cleaned up).

*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-deprivation notice before

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<sup>39</sup> Thorn et al., *supra* note 29.

<sup>40</sup> 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”).

sanctioning Tornado Cash and instead blocked all American Tornado Cash users from accessing their funds.<sup>41</sup>

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*.<sup>42</sup> 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.**

To the extent there is any remaining doubt, the rule of lenity further underscores that any ambiguity must be resolved against OFAC. As the District Court recognized, “even though this is not a criminal case, the IEEPA imposes criminal penalties, and when courts are faced with a statute that has both criminal

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<sup>41</sup> *Frequently Asked Questions #1079, supra* note 30.

<sup>42</sup> *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>.



and noncriminal applications, they must interpret the statute consistently in both contexts.” *Coin Center*, 2023 WL 7121095, at \*7 (citing *Romero v. Sec’y, U.S. Dep’t of Homeland Sec.*, 20 F.4th 1374, 1383 (11th Cir. 2021)) (cleaned up). Accordingly, if this Court finds any ambiguity about the scope of what is sanctionable, it must err on the side of caution.

### **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. 5 U.S.C. § 706(2)(A). This is so for at least two reasons.

*First*, 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.<sup>43</sup> 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

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<sup>43</sup> *Treasury Designates DPRK Weapons Representatives*, *supra* note 27.

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 violated a trigger for sanctions, such as by “materially assist[ing]” in “[a]ctions ... that undermine democratic processes or institutions in Ukraine,” 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—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).

*Second*, OFAC has violated a “central principle of administrative law” by departing from long standing 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,” such

that sanctioned persons can eventually seek to be removed from OFAC’s list.<sup>44</sup> But that goal cannot be met here. The Tornado Cash software and the pools it autonomously operates are immutable and not controlled by any hypothetical entity.<sup>45</sup> There is simply no mechanism for any Tornado Cash developer or DAO member to change or shutter it in response to sanctions, and even today the software continues to be used, even if not by law-abiding Americans. 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 Mfrs. Ass’n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983). Either way, OFAC’s reasoning does not measure up to the APA’s standards, and the sanctions fail on that basis 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

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<sup>44</sup> *Id.*

<sup>45</sup> Brad Bourque, *OFAC’s Tornado Cash Sanctions and the Problem of Immutability*, Fordham J. Corp. & Fin. L. (Oct. 30, 2022), <https://bit.ly/3yViJns>.

Americans' financial privacy, and effecting a vast expansion of OFAC's power. This Court should reverse the decision below and direct the entry of summary judgment for the Plaintiffs.

Dated: December 22, 2023

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1. This brief complies with the type-volume limitations contained in Federal Rule of Appellate Procedure 29(a)(5) because, excluding the portions exempted by Rule 32(f), the brief contains 5,887 words, as determined by the Microsoft Word program used to prepare it.

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Dated: December 22, 2023

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I hereby certify that on December 22, 2023, the foregoing was electronically filed with the Clerk of Court using the Appellate PACER system, which automatically serves e-mail notification of such filings to the attorneys of record who are registered participants in the Court's electronic notice and filing system and each of whom may access this filing via the Court's Appellate PACER system.

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