

United States Court of Appeals
for the Fifth Circuit

United States Court of Appeals
Fifth Circuit

FILED

November 26, 2024

Lyle W. Cayce
Clerk

No. 23-50669

JOSEPH VAN LOON; TYLER ALMEIDA; ALEXANDER FISHER;
PRESTON VAN LOON; KEVIN VITALE; NATE WELCH,

Plaintiffs—Appellants,

versus

DEPARTMENT OF THE TREASURY; OFFICE OF FOREIGN ASSETS
CONTROL; JANET YELLEN, *Secretary, U.S. Department of Treasury, in
her official capacity*; ANDREA M. GACKI, *in her official capacity as Director
of the Office of Foreign Assets Control,*

Defendants—Appellees.

Appeal from the United States District Court
for the Western District of Texas
USDC No. 1:23-CV-312

Before JONES, WILLETT, and ENGELHARDT, *Circuit Judges.*

DON R. WILLETT, *Circuit Judge:*

The International Emergency Economic Powers Act, an integral part of the modern U.S. sanctions regime, authorizes the President to freeze the assets of, and prohibit transactions with, any foreign actor determined to be a threat to America's national security. This sweeping delegated power is carried out by the Treasury Department's Office of Foreign Assets Control (OFAC), which oversees various economic-based sanctions programs. In

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late 2022, OFAC sanctioned Tornado Cash, an open-source, crypto-transaction software protocol that facilitates anonymous transactions by obfuscating the origins and destinations of digital asset transfers. OFAC blacklisted Tornado Cash for its role in laundering virtual currency for malicious cyber actors—for example, a North Korea-linked hacking group that used Tornado Cash to launder the proceeds of cybercrimes. By adding Tornado Cash to the list of Specially Designated National and Blocked Persons (SDN), OFAC imposed an across-the-board prohibition against any dealings with Tornado Cash “property,” which OFAC defined to include open-source computer code known as “smart contracts.” Tornado Cash’s crypto-mixing smart contracts offer two prized attributes: privacy (by anonymizing digital transactions) and immutability (as the software code is unownable, uncontrollable, and unchangeable—even by its creators).

The six plaintiffs-appellants are users of Tornado Cash. They argue that Tornado Cash’s inclusion on the SDN list exceeded OFAC’s statutory authority. The district court disagreed, granting summary judgment to the Department and finding Tornado Cash subject to OFAC’s sanctioning authority. Van Loon and the other plaintiffs appealed, making the same principal argument here—that Tornado Cash’s open-source, self-executing software is not sanctionable under the Act (as opposed to the rogue persons and entities who abuse it). OFAC’s concerns with illicit foreign actors laundering funds are undeniably legitimate. Perhaps Congress will update IEEPA, enacted during the Carter Administration, to target modern technologies like crypto-mixing software. Until then, we hold that Tornado Cash’s immutable smart contracts (the lines of privacy-enabling software code) are not the “property” of a foreign national or entity, meaning (1) they cannot be blocked under IEEPA, and (2) OFAC overstepped its congressionally defined authority.

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We REVERSE and REMAND to the district court with instructions to grant Van Loon’s motion for partial summary judgment based on the Administrative Procedure Act.

I

Before getting to the legal analysis, we first offer a primer on cryptocurrency and blockchain.¹

Unlike traditional fiat currencies, such as the U.S. dollar, cryptocurrency is a decentralized and fully digital form of currency. Like fiat currencies, there are many kinds of cryptocurrency, and each is associated with a unique “coin” that serves as its record of value. These coins, like fiat currencies, can be traded, transferred, invested, and used to pay for goods and services.

Cryptocurrency’s value is recorded on a “blockchain.” Blockchains function like a bank’s ledger in that they record all transfers of data²—including, as relevant to this case, transactions. But unlike a bank ledger, blockchains are “public, permanent, permissionless, and maintained through a decentralized network of independent computers” or online users. In

¹ We recognize that ongoing litigation challenges whether certain crypto assets are currency or securities that are subject to regulation by the Securities and Exchange Commission. Our descriptions of cryptocurrency, blockchain, Ethereum, and Ether in this opinion do not answer that question and merely reflect the language used in the briefing and in the record. Likewise, when we make analogies to the banking industry, we do not weigh in on whether crypto is a part of the banking industry, another issue that is currently being litigated.

² David Rodeck, *Understanding Blockchain Technology*, Forbes (May 23, 2023), available at <https://www.forbes.com/advisor/investing/cryptocurrency/what-is-blockchain/> [https://perma.cc/V6TE-L6EV].

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essence, each transaction is stored on a “block” added to the “chain” of all prior transactions—and is publicly viewable forever.³

Cryptocurrency users hold their coins in “wallets.” Wallets have both public and private identifiers: addresses (which are public account identifiers) and keys (which function like passwords). Each time a user transacts with cryptocurrency, the transaction is posted to the blockchain and is visible to anyone. After a validation process, the blockchain displays the sender’s address, the recipient’s address, and the amount of cryptocurrency exchanged.

The addresses are, in theory, pseudonymous, and thus only the cryptocurrency user typically knows the transaction is his or hers. However, de-anonymization is not impossible. Onlookers can identify transaction participants if they can match a public address to an identifiable person.⁴ And once that happens, the blockchain reveals other transactions that belong to the same person and potentially reveals sensitive information about that person based on how they transfer their coins.⁵ As a result, some cryptocurrency users want additional options to keep their transactions private.

³ *Id.*; see also *Ethereum Block Structure*, Geeks for Geeks (Aug. 22, 2024), available at <https://www.geeksforgeeks.org/ethereum-block-structure/> [<https://perma.cc/X56H-ZR3Q>].

⁴ Satoshi Nakamoto, *Bitcoin: A Peer-to-Peer Electronic Cash System*, at 6 (2008), available at https://www.ussc.gov/sites/default/files/pdf/training/annual-national-training-seminar/2018/Emerging_Tech_Bitcoin_Crypto.pdf [<https://perma.cc/24VZ-799N>].

⁵ See *id.* (“[I]f the owner of a key is revealed, linking [on the public ledger] could reveal other transactions that belonged to the same owner.”); see, e.g., *Matter of Search of Multiple Email Accts. Pursuant to 18 U.S.C. § 2703 for Investigation of Violation of 18 U.S.C. § 1956 et al*, 585 F. Supp. 3d 1, 8 (D.D.C. 2022) (detailing such surveillance).

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A

One type of cryptocurrency coin is Ether (ETH), created and used in the Ethereum blockchain network. There are two kinds of Ethereum accounts: externally owned accounts and smart contracts.

An externally owned account is a wallet that can be controlled by anyone with the address and corresponding private key. So if a person wants to initiate a transaction from the wallet they control, they send a request to the Ethereum blockchain and pay a transaction fee—referred to as gas fees—in Ether. An individual known as a validator then verifies and executes the transaction by editing the blockchain to reflect the sending and receiving accounts' new balances. Only individuals who stake significant amounts of Ether as collateral may become validators, to ensure the blockchain's edits are legitimate.

The second type of account, a smart contract, is a software or computer program that is uploaded onto the blockchain network. These accounts do not require validators. Instead, the software is programmed to automatically perform tasks, such as executing transactions, transferring cryptocurrency assets, and creating new smart contracts, once prompted by a user. Once a smart contract is deployed on the blockchain, it is assigned a public address with which any user can interact. As an example, a “simple vendor smart contract” could create and assign ownership of some digital asset once a user sends Ether to a specified recipient's address. Like all other transactions, a transaction using a smart contract incurs a gas fee, which varies depending on the smart contract's complexity.

Smart contracts come in two forms: “mutable” and “immutable.” A mutable smart contract is one which is managed by some party or group and may be changed. An immutable smart contract, on the other hand, cannot be altered or removed from the blockchain. Importantly, a mutable contract may

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be altered to *become* immutable. But that is an irreversible step; once a smart contract becomes immutable, no one can reclaim control over it.

B

Enter Tornado Cash.

Tornado Cash is a decentralized, open-source software project developed by a group of contributors who uploaded a series of smart contracts to the Ethereum blockchain in 2019. Some of the developers included Roman Storm and two Russian nationals, Alexey Pertsev and Roman Semenov. Pertsev, who has provided material and technological support to the Federal Security Service of Russia, was arrested by Dutch authorities on money-laundering charges.⁶ And the U.S. indicted Storm and Semenov on similar money-laundering charges.⁷

As of 2022, the Tornado Cash software included both mutable and immutable smart contracts, all of which are open-source and stored on the Ethereum blockchain. Relevant to this appeal are a set of Tornado Cash-developed smart contracts that provide increased anonymity by “collect[ing], pool[ing], and . . . shuffl[ing] the cryptocurrencies deposited by many users.” These smart contracts, like other software codes that perform similar tasks, are called “mixers.”

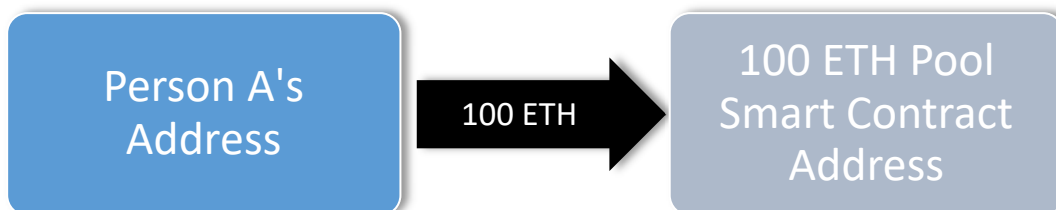
So how do these smart contracts work in practice? Users first deposit crypto into a specific “pool” smart contract based on the amount and type of

⁶ FIOD Belastingdienst, *Arrest of Suspected Developer of Tornado Cash* (Aug. 12, 2022), available at <https://www.fiod.nl/arrest-of-suspected-developer-of-tornado-cash/> [<https://perma.cc/RCC7-QMQ2>].

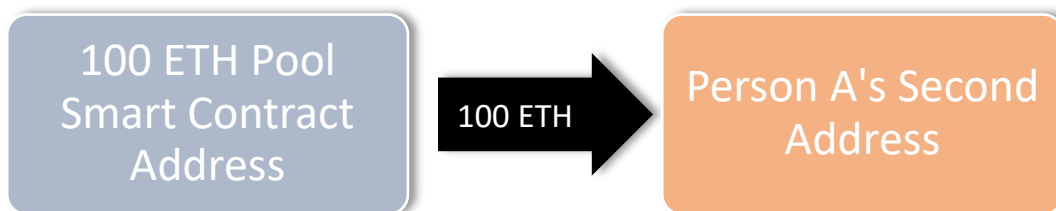
⁷ Press Release, U.S. Attorney’s Office (S.D.N.Y.), *Tornado Cash Founders Charged With Money Laundering And Sanctions Violations* (Aug. 23, 2023), available at <https://www.justice.gov/usao-sdny/pr/tornado-cash-founders-charged-money-laundering-and-sanctions-violations> [<https://perma.cc/2K7P-VJZU>].

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crypto they want to mix. For example, someone who wants to deposit and withdraw 100 Ether would start by sending 100 ETH to the “100 ETH Pool Contract.” That transaction would look something like this:



Depositors then receive keys or a password entitling the holder to withdraw the same amount from a given pool, and this withdrawal can be made to an entirely different wallet than the depositing wallet, thus “sever[ing]” “any public link between the deposit and withdrawal addresses.” The software code that forms the pool smart contract will trigger a withdrawal from the pool *only* after it verifies the password. So when the person goes to withdraw the amount to a second address, the second transaction would look something like this:



These two transactions form the foundation of the Tornado Cash mixing process. And the entire process occurs automatically—with no human intervention.

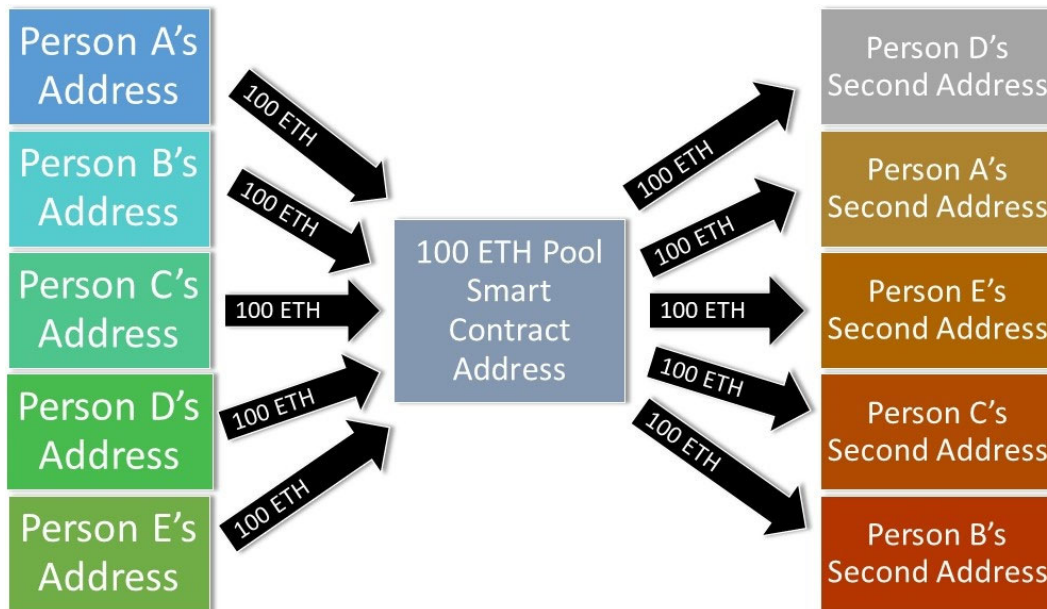
But the Tornado Cash pool smart contracts depend on “a critical mass of users concurrently depositing and withdrawing transactions to obfuscate links between deposit and withdrawal addresses.” The more users deposit

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coins in a pool, the more anonymous it is. So if only one person were using the 100 ETH pool smart contract to mix their transfer, the transaction would be easily traceable:



But if even five people were using the 100 ETH pool smart contract, it becomes more difficult to trace any transfer of 100 ETH to a particular address:



Now imagine this complexity amplified with thousands of users. The result: a highly obfuscated blockchain that is much harder to trace and consequently renders the transactors far more anonymized.

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Although some of the Tornado Cash-developed smart contracts were immutable from the start, the developers initially retained the ability to update the pool smart contracts' codes—in other words, the pool smart contracts were originally mutable. But in 2020, the developers announced a “trusted setup ceremony” in which they would eliminate their control over the pool smart contracts. In that ceremony, more than 1,100 users participated, and at least twenty smart contracts—including the pool smart contracts—became irreversibly immutable. Consequently, the pool smart contracts became self-executing and could no longer be altered, removed, or controlled.

C

After the pool contracts became immutable, the original developers of Tornado Cash announced the creation of a decentralized autonomous organization (DAO) and a new crypto token called TORN, which can be transferred and sold on the blockchain like any other crypto asset. There are currently 1.5 million TORN tokens in circulation, and owning TORN allows, but does not require, individuals to vote on a limited subset of DAO governance issues. In fact, TORN holders must register their TORN tokens to be able to vote on any of those issues. To register their TORN tokens, individuals must lock their TORN into another mutable “governance” smart contract. Most TORN token holders have never taken these steps.

The DAO can *only* vote to implement new projects and change certain optional Tornado Cash features. It cannot vote on or make any changes to immutable smart contracts, such as the pool smart contracts.

D

Even though the pool smart contracts help to anonymize transactions, those transactions aren't fully anonymized because they still incur gas fees. The withdrawing account must pay the gas fee to the Ethereum network to

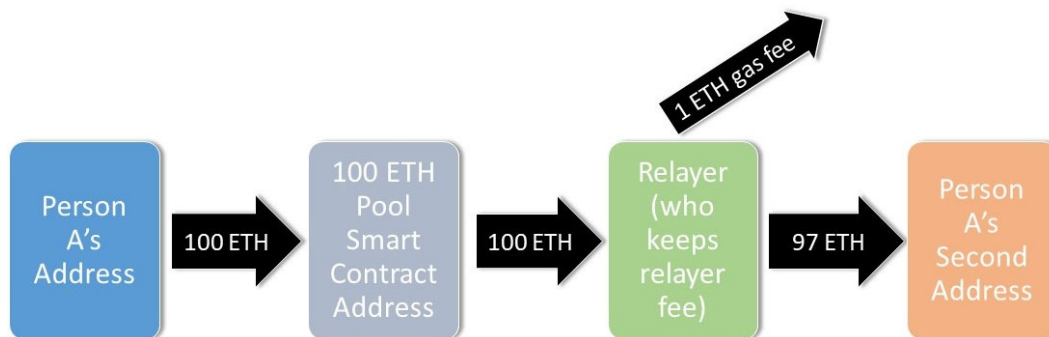
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extract Ether from a pool. And “sending Ether to the withdrawal account prior to withdrawal might create a link between the user’s deposit and withdrawal accounts” —the existence of which the Tornado Cash pool smart contracts are designed to obscure. For example, if the gas fee was 1 ETH, the transaction would still be traceable, as seen in the example below:



To combat this problem, Tornado Cash developers continued to develop additional anonymity tools, such as the use of relayers, which are *mutable* smart contracts operated by third parties. Relayers function like middlemen who pay the gas fees from their own accounts, deducting the cost of those fees—as well as their own relayer fees—from the amount withdrawn from the pool. Relayers never have custody over users’ Ether, as the smart contract ensures that withdrawn Ether are only ever sent to the user’s withdrawal account. The relayers then send the remaining amount to the account receiving the withdrawal. Thus, the relayers can eliminate any link between the deposit and withdrawal accounts. For example, if the gas fee was 1 ETH and the relayer fee was 2 ETH, the (simplified) complete transaction would look something like this:

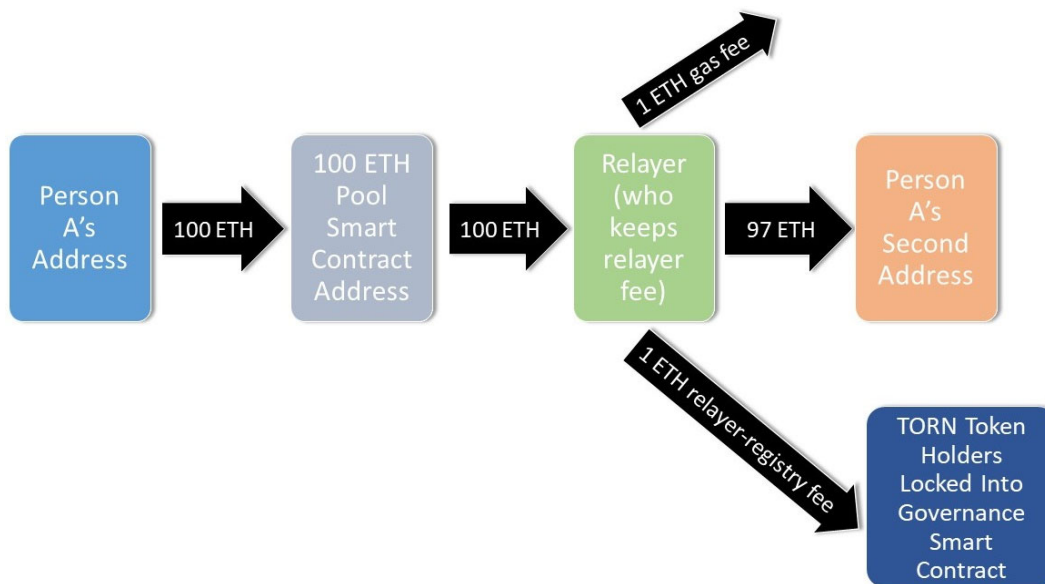
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The Tornado Cash developers created a mutable smart contract that maintains a registry of relayers, separate from the immutable pool smart contracts. Anyone can become a relayer for Tornado Cash by staking a specified amount of TORN, at which point they are added to the relayer registry.

For most (though not all) transactions processed by a third-party relayer, the mutable relayer-registry smart contract collects a fee from the relayer and pays it to the TORN token holders who have locked their TORN into the mutable governance smart contract. This fee is separate from the gas fee paid to the Ethereum network. For example, if the gas fee was 1 ETH, the relayer fee was 1 ETH, and the relayer-registry fee was 1 ETH, the complete transaction would look something like this:

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The use of relayers—and the mutable relay-registry smart contract—is entirely optional. Indeed, not all users of the immutable pool smart contracts use relayers.

E

The use of mixers like the Tornado Cash immutable smart contracts is, well, mixed. For example, law-abiding cryptocurrency users employ mixers to maintain anonymity concerning their net worth, spending habits, and donations to political causes. Mixers can also be used to thwart criminals that would use this information to identify potential victims or set up phishing schemes. For example, plaintiff Joseph Van Loon sought to use Tornado Cash to run a blockchain service without falling prey to malicious cyberattacks. Plaintiff Tyler Almeida used Tornado Cash to anonymously donate to the Ukrainian war effort because he was worried that Russian hacker groups would target him specifically if they were able to easily trace the donation back to him. Plaintiff Kevin Vitale turned to Tornado Cash after learning that someone had linked his crypto activities to his physical address. Plaintiff Alexander Fisher used Tornado Cash to develop code that improved

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the uses of the Ethereum blockchain network. And plaintiff Nate Welch used Tornado Cash to protect his privacy and to avoid harassment from malicious actors.

However, mixers are also “go-to tool[s] for cybercriminals” seeking to launder stolen cryptocurrency. Nearly a quarter of funds sent to mixers in 2022 were tied to money laundering efforts. Most relevant to this case, North Korea, through one of its cybercriminal organizations known as the Lazarus Group, has hacked and stolen just shy of one billion dollars’ worth of cryptocurrency. And all of that dirty money needed to be laundered before it could be cashed out for traditional (and far more liquid) fiat currencies. So North Korean hackers turned to mixers. More than 65 percent of North Korea’s dirty crypto went through mixers in 2021, “up from 42 percent in 2020 and 21 percent in 2019.” And how does North Korea use this laundered money? To fund its weapons of mass destruction and ballistic missile programs.

II

We now turn to the relevant statutory authority and agency action.

The International Emergency Economic Powers Act allows the President to exercise extraordinary economic powers after “declar[ing] a national emergency with respect to” “any unusual and extraordinary threat, which has its source in whole or substantial part outside the United States, to the national security, foreign policy, or economy of the United States.”⁸ This includes blocking “any property in which any foreign country or a national

⁸ 50 U.S.C. § 1701(a).

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thereof has any interest.”⁹ Similarly, the North Korea Sanctions and Policy Enhancement Act permits the President to “designate . . . any person that [he] determines” is engaged in certain prohibited activities with respect to North Korea.¹⁰ Once the President designates a person, they are listed as an SDN, and the President may “exercise all of the powers granted to [him] under the International Emergency Economic Powers Act” “to the extent necessary to block and prohibit all transactions in property and interests in property of [that] person.”¹¹

President Obama invoked these Acts in two executive orders relevant to this case. First, he blocked the property and interests in property of those persons that the Department of the Treasury determined “to have materially assisted, sponsored, or provided financial, material, or technological support for, or goods or services to or in support of” North Korea or other persons that materially supported it in its “continuing pursuit” of “nuclear and missile programs.”¹² Second, President Obama blocked the property and interests in property of both (1) “any person” determined by the Department to be “responsible for,” or “directly or indirectly” “engaged” in certain cyber-enabled activities that threaten the United States’ national security, foreign policy, and economy, and (2) any person determined “to have

⁹ *Id.* § 1702(a)(1)(B); *see, e.g.*, Exec. Order No. 12,978, 60 Fed. Reg. 54,579 (Oct. 21, 1995) (blocking assets of persons who “play a significant role in international narcotics trafficking centered in Colombia”); Exec. Order No. 13,382, 70 Fed. Reg. 38,567 (June 28, 2005) (blocking assets of persons who have engaged in transactions that have materially contributed to the proliferation of weapons of mass destruction and their supporters).

¹⁰ 22 U.S.C. § 9214(a), (b).

¹¹ 22 U.S.C. § 9214(c)(1); *see also* 22 U.S.C. § 9214(c)(2).

¹² Exec. Order No. 13,722, 81 Fed. Reg. 14,943, 14,944 (Mar. 18, 2016).

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materially assisted, sponsored, or provided financial, material, or technological support for” such activities.¹³

Both orders confer rulemaking authority on the Department and allow it “to employ all powers granted to the President by [the Act] as may be necessary to carry out” their purposes.¹⁴ The Department, in turn, delegated authority to block persons under these orders to one of its internal agencies, the Office of Foreign Assets Control (OFAC).

OFAC issued regulations through these delegations, including definitional regulations for the words “person,”¹⁵ “entity,”¹⁶ “property,”¹⁷ and “interest.”¹⁸ It also provided avenues for those affected by blocking designations to present a challenge, and it sometimes grants licenses to engage in transactions involving blocked property.¹⁹

A

On August 8, 2022, OFAC designated as entities the website *tornado.cash*, 37 Tornado Cash smart contracts (including at least twenty immutable smart contracts), and an address that was used to accept donations, citing North Korea’s use of Tornado Cash to commit cybercrimes

¹³ Exec. Order No. 13,694, 80 Fed. Reg. 18,077 (Apr. 2, 2015).

¹⁴ 80 Fed. Reg. at 18,079; 81 Fed. Reg. at 14,945; *see* 50 U.S.C. § 1704 (authorizing the President to “issue such regulations, *including regulations prescribing definitions*, as may be necessary for the exercise of the authorities granted” by IEEPA (emphasis added)).

¹⁵ 31 C.F.R. §§ 510.322, 578.313.

¹⁶ *Id.* §§ 510.305, 578.305.

¹⁷ *Id.* §§ 510.323, 578.314.

¹⁸ *Id.* §§ 510.313, 578.309.

¹⁹ *Id.* §§ 501.807 (outlining procedures governing delisting from the SDN list), 510.501 (concerning licensing procedures), 578.404 (concerning the blocking of transactions ordinarily incident to a licensed transaction).

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like the laundering of stolen crypto.²⁰ Three months later, OFAC withdrew the August 8 designation and issued a new designation, which included 53 Ethereum addresses associated with the Tornado Cash software. The designations identified Tornado Cash as an entity organized by and under its DAO, and in doing so blocked “all real, personal, and other property and interests in property” of the designated Tornado Cash entity subject to U.S. jurisdiction. OFAC does not claim that Tornado Cash software is itself a product of North Korea or in any way owned or controlled by North Korea—but rather that some transactions using Tornado Cash software involved the North Korean Lazarus Group. The Lazarus Group had already been added to the SDN list. After it added Tornado Cash to the SDN list, OFAC issued notices reminding Tornado Cash users that they could request licenses to retrieve funds trapped within Tornado Cash pools and made clear that people could interact with its open-source code, just not with its transaction and pooling functions.²¹

Six Tornado Cash users sued the Department under three theories. Their primary theory, and the only one advanced on appeal,²² asserts that OFAC violated the Administrative Procedure Act.²³ They claim that OFAC lacked the authority to designate Tornado Cash as an SDN because (1) Tornado Cash is not a foreign “national” or “person,” (2) the immutable pool smart contracts are not “property,” and (3) Tornado Cash cannot have

²⁰ 80 Fed. Reg. at 18,077; 81 Fed. Reg. at 14,943.

²¹ See OFAC, U.S. Dep’t of the Treasury, *Frequently Asked Questions* (Sept. 13, 2022), available at <https://ofac.treasury.gov/faqs/topic/1546> [<https://perma.cc/9FDC-42M4>].

²² The users also claimed that OFAC’s designation violated the First and Fifth Amendments but did not appeal their loss on those grounds.

²³ 5 U.S.C. §§ 551 *et seq.*; 5 U.S.C. §§ 701 *et seq.*

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a property “interest” in the immutable smart contracts. The district court granted the Department’s motion for summary judgment and denied that of the Tornado Cash users, concluding: (1) Tornado Cash is an “entity that may be properly designated as a person under IEEPA,” (2) that smart contracts constitute “property,” (3) and that the DAO, which runs Tornado Cash, has an “interest” in its smart contracts because it derives profits from its crypto mixing and relaying services that run on smart contracts.

The Tornado Cash users timely appealed.

III

We review cross-motions for summary judgment *de novo*.²⁴ Summary judgment is warranted if “there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law.”²⁵ When parties file cross-motions for summary judgment, we review “each party’s motion independently, viewing the evidence and inferences in the light most favorable to the nonmoving party.”²⁶

Because “the actions of the Treasury Department in designating” Tornado Cash “are governed by the judicial review provisions of the APA,” we must affirm “if [] OFAC’s actions were not arbitrary and capricious, and were based on substantial evidence.”²⁷

²⁴ *Morgan v. Plano Indep. Sch. Dist.*, 589 F.3d 740, 745 (5th Cir. 2009).

²⁵ FED. R. CIV. P. 56(a).

²⁶ *Ford Motor Co. v. Tex. Dep’t of Transp.*, 264 F.3d 493, 498 (5th Cir. 2001).

²⁷ *Holy Land Found. for Relief & Dev. v. Ashcroft*, 333 F.3d 156, 162 (D.C. Cir. 2003); *see also* 5 U.S.C. § 706(2)(A).

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IV

The International Emergency Economic Powers Act and the North Korea Sanctions and Policy Enhancement Act vest the President with the authority to regulate (or block) “property”²⁸ in which a foreign “national” or “person” (or “entity”)²⁹ has an “interest.”³⁰ Van Loon argues that the district court erred in giving “heightened deference” to OFAC’s definition of “property” and in finding that the immutable smart contracts met that definition. We agree. And because that element is dispositive, we need not address the other elements.

A

This case is only the fifteenth in this circuit³¹ to consider agency deference in the wake of *Loper Bright v. Raimondo*,³² which overruled *Chevron, U.S.A., Inc. v. Natural Resources Defense Council, Inc.*³³ and eliminated the “judicial invention” of deference to administrative action and rulemaking.³⁴

In *Loper Bright*, the Supreme Court “clarified ‘the unremarkable, yet elemental proposition reflected in judicial practice dating back to *Marbury*’ that ‘courts decide legal questions by applying their own judgment,’ even in

²⁸ 50 U.S.C. § 1702(a)(1)(B); 22 U.S.C. § 9214(c)(1), (2).

²⁹ 22 U.S.C. § 9214(a)–(c); 50 U.S.C. § 1702(a).

³⁰ 50 U.S.C. § 1702(a)(1)(B); 22 U.S.C. § 9214(c)(1), (2).

³¹ Many of these cases remanded to the district court for initial review in light of *Loper Bright*. See, e.g., *Utah v. Su*, 109 F.4th 313, 322 (5th Cir. 2024); *Arnesen v. Raimondo*, No. 24-60055, 2024 WL 3912178, at *3 (5th Cir. Aug. 23, 2024).

³² 144 S. Ct. 2244 (2024).

³³ 467 U.S. 837 (1984).

³⁴ *Loper Bright*, 144 S. Ct. at 2272.

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agency cases.”³⁵ When “Congress has clearly delegated discretionary authority to an agency, we discharge our duty by ‘independently interpret[ing] the statute and effectuat[ing] the will of Congress subject to constitutional limits.’”³⁶ In effect, the Supreme Court has instructed that we must “independently identify and respect [constitutional] delegations of authority, police the outer statutory boundaries of those delegations, and ensure that agencies exercise their discretion consistent with” the Administrative Procedure Act or have engaged in reasoned decisionmaking within those boundaries.³⁷ To do so, we must “determine the ‘best’ reading of a statute; a merely ‘permissible’ reading is not enough.”³⁸

B

“As usual, we start with the statutory text.”³⁹ Where a statute leaves terms undefined, we accord those terms their “ordinary, contemporary, common meaning.”⁴⁰ And the “ordinary” or “plain” meaning of “property” compels summary judgment in Van Loon’s favor.

Under the International Emergency Economic Powers Act, the President is permitted to “block . . . *any property* in which any foreign country

³⁵ *Mayfield v. United States Dep’t of Lab.*, No. 23-50724, 2024 WL 4142760, at *4 (5th Cir. Sept. 11, 2024) (quoting *Loper Bright*, 144 S. Ct. at 2261).

³⁶ *Id.* (alteration in original) (quoting *Loper Bright*, 144 S. Ct. at 2263).

³⁷ *Id.* (alteration in original) (internal quotation marks omitted) (quoting *Loper Bright*, 144 S. Ct. at 2263, 2268).

³⁸ *Id.* (quoting *Loper Bright*, 144 S. Ct. at 2266).

³⁹ *Tanzin v. Tanvir*, 592 U.S. 43, 46 (2020).

⁴⁰ *Rest. L. Ctr. v. United States Dep’t of Lab.*, No. 23-50562, 2024 WL 3911308, at *5 (5th Cir. Aug. 23, 2024) (internal quotation marks and citations omitted); *see also Conn. Bank of Com. v. Republic of Congo*, 309 F.3d 240, 260 (5th Cir. 2002).

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or a national thereof has any interest.”⁴¹ Although the statute does not define “property,” property has a plain meaning: It is capable of being owned.

First, take dictionary definitions contemporaneous with the statute’s passage in 1977.⁴² Property includes “everything which is or may be the subject of ownership, whether a legal ownership, or whether beneficial, or a private ownership.”⁴³ Similarly, it is “the condition of being owned by or

⁴¹ 50 U.S.C.A. § 1702(1)(1)(B).

⁴² See 50 U.S.C. § 1702; *Taniguchi v. Kan Pacific Saipan, Ltd.*, 566 U.S. 560, 566–69 (2012) (discussing usefulness of contemporary dictionary definitions in interpreting statutes); *VanDerStok v. Garland*, 86 F.4th 179, 189 (5th Cir. 2023), *cert. granted*, 144 S. Ct. 1390 (2024) (“[T]he meanings of statutes do not change with the times. ‘This Court normally interprets a statute in accord with the ordinary public meaning of its terms at the time of its enactment. After all, only the words on the page constitute the law adopted by Congress and approved by the President.’” (quoting *Bostock v. Clayton Cnty.*, 590 U.S. 644, 654 (2020))). And as additional support, the meaning of “property” hasn’t changed over time. See *Property*, WEBSTER’S NEW INTERNATIONAL DICTIONARY OF THE ENGLISH LANGUAGE 1984 (2d ed. 1941) (“the exclusive right to possess, enjoy, and dispose of, a thing; ownership”); NOAH WEBSTER, *Property*, AMERICAN DICTIONARY OF THE ENGLISH LANGUAGE (1828), <https://webstersdictionary1828.com/Dictionary/Property> [<https://perma.cc/6CWZ-6BXM>] (“The exclusive right of possessing, enjoying and disposing of a thing; ownership”); SAMUEL JOHNSON, *Property*, DICTIONARY OF THE ENGLISH LANGUAGE (1773), https://johnsonsdictionaryonline.com/1773/property_ns [<https://perma.cc/QH5Y-CFSY>] (defining property as the “right of possession” and “the thing possessed” and referring to “[p]roperty, whose original is from the right a man has to use any of the inferior creatures, for subsistence and comfort, is for the sole advantage of the proprietor, so that he may even destroy the thing that he has property in. *Locke*.”); see also *Missouri Pac. R. Co. v. United States*, 271 U.S. 603, 607 (1926) (“In a sense, words do not change their meaning.”); Jennifer Senior, *In Conversation: Antonin Scalia*, NEW YORK MAGAZINE (Oct. 4, 2013), <https://nymag.com/news/features/antonin-scalia-2013-10/> [<https://perma.cc/QJC2-H8PK>] (“Words have meaning. And their meaning doesn’t change.”).

⁴³ *Property*, BLACK’S LAW DICTIONARY 1095 (5th ed. 1979); see also *Property*, THE RANDOM HOUSE COLLEGE DICTIONARY 1061 (1973) (“ownership; right of possession or disposal of anything”); *Property*, THE RANDOM HOUSE COLLEGE DICTIONARY 1061 (1982) (same).

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belonging to some person or persons”⁴⁴ and encompasses “the right to possess, use, and dispose of something.”⁴⁵ It also includes the right “to exclude everyone else from interfering with it.”⁴⁶ And even the Department seems to agree:

The term “property” refers to “the rights in a valued resource such as land, chattel, or an intangible,” and can be applied “to every kind of valuable right and interest that *can be made the subject of ownership*.” The term “ownership” refers to “[t]he bundle of rights allowing one to use, manage, and enjoy property.”⁴⁷

Sure, “[o]wnership does not always mean *absolute* dominion,”⁴⁸ but it at least requires *some* dominion.

The Supreme Court—and a long history of scholarship, beginning with William Blackstone—has reaffirmed this ordinary meaning. The Supreme Court has defined property as “all objects or rights which are

⁴⁴ *Property*, OXFORD ENGLISH DICTIONARY (2d ed. 1989).

⁴⁵ *Property*, WEBSTER’S NEW WORLD DICTIONARY OF THE AMERICAN LANGUAGE 1167 (college ed. 1968) (“the right to possess, use, and dispose of something; ownership” or “a thing or things owned”).

⁴⁶ *Property*, BLACK’S LAW DICTIONARY 1382 (4th ed. 1968) (“that which is peculiar or proper to any person; that which belongs exclusively to one... more specifically, ownership the unrestricted and exclusive right to a thing; the right to dispose of a thing in every legal way, to possess it, to use it, and to exclude every one else from interfering with it”).

⁴⁷ Brief of Appellee at 36 (emphasis added) (citing *Property*, BLACK’S LAW DICTIONARY (12th ed. 2024) (quotation marks omitted); *Ownership*, BLACK’S LAW DICTIONARY (12th ed. 2024)).

⁴⁸ Brief of Appellee at 37 (emphasis added) (citing *Marsh v. Alabama*, 326 U.S. 501, 506 (1946)).

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susceptible of ownership.”⁴⁹ Indeed, when someone has a property interest, he or she typically has the “rights of possession and control.”⁵⁰ And “one of the most essential sticks in the bundle of rights that are commonly characterized as property” is “the right to exclude others.”⁵¹

The immutable smart contracts at issue in this appeal are not property because they are not capable of being owned. More than one thousand volunteers participated in a “trusted setup ceremony” to “*irrevocably remov[e]* the option for anyone to update, remove, or otherwise control those lines of code.” And as a result, no one can “exclude” anyone from using the Tornado Cash pool smart contracts. In fact, because these immutable smart contracts are unchangeable and unremovable, they remain available for anyone to use and “the targeted North Korean wrongdoers *are not actually blocked from retrieving their assets*,” even under the sanctions regime. Simply put, regardless of OFAC’s designation of Tornado Cash, the immutable

⁴⁹ *Meyer v. United States*, 364 U.S. 410, 412 n.3 (1960); *see also 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).

⁵⁰ *Property Interest*, BLACK’S LAW DICTIONARY (12th ed. 2024) (“[a]n interest, perhaps including rights of possession and control, held by an owner, beneficiary, or remainderman in land, real estate, business, or other tangible items”); *see also United States v. Craft*, 535 U.S. 274, 278 (2002) (“A common idiom describes property as a ‘bundle of sticks’—a collection of individual rights which, in certain combinations, constitute property.” (citing BENJAMIN CARDOZO, PARADOXES OF LEGAL SCIENCE 129 (reprt. 2000) (1928); *Dickman v. Commissioner*, 465 U.S. 330, 336 (1984))).

⁵¹ *Dolan v. City of Tigard*, 512 U.S. 374, 384 (1994) (internal quotation marks and citation omitted); *see also Cedar Point Nursery v. Hassid*, 594 U.S. 139, 149–50 (2021) (“The right to exclude is ‘one of the most treasured’ rights of property ownership. According to Blackstone, the very idea of property entails ‘that sole and despotic dominion which one man claims and exercises over the external things of the world, in total exclusion of the right of any other individual in the universe.’” (citing 2 W. BLACKSTONE, COMMENTARIES ON THE LAWS OF ENGLAND 2 (1766))); Thomas Merrill, *Property and the Right to Exclude*, 77 Neb. L. Rev. 730, 752 (1998) (calling the right to exclude the “*sine qua non*” of property).

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smart contracts continue operating. And furthermore, because the software continues to operate regardless of the sanctions, and the blockchain technology “allows peer-to-peer transfers . . . without requiring the recipient to consent to transfer,” some users may become liable whenever someone transfers them digital assets via Tornado Cash, even without their knowledge or consent.

Sure, some smart contracts are capable of being owned in the sense that Tornado Cash developers can create new smart contracts and disconnect old *mutable* contracts. In theory, should Tornado Cash developers choose to comply with sanctions on *mutable* smart contracts, those developers could disconnect those mutable smart contracts to make them inaccessible and unusable by anyone on the Ethereum blockchain. But they cannot discard, change, disconnect, or control smart contracts that are *immutable*—like the ones currently listed on OFAC’s SDN list and at issue in this appeal. Even with the sanctions in place, “those immutable smart contracts remain accessible to anyone with an internet connection.”

C

Our inquiry could end here: The plain meaning of “property” in the Act does not support the Department’s designation of Tornado Cash. But the Department points us to “OFAC’s longstanding regulatory definition of ‘any property,’” which includes “contracts of any nature” and “services of any nature,” and suggests that OFAC’s definition supports the smart contracts’ status as “property” under the Act. Regardless of whether *Loper Bright* does or does not require us to assess OFAC’s definition,⁵² (1) even

⁵² *Loper Bright*, 144 S. Ct. at 2263 (recognizing that a “statute’s meaning may well be that the agency is authorized to exercise a degree of discretion” when the statute “‘expressly delegate[s]’ to an agency the authority to give meaning to a *particular* statutory

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under OFAC's definitions, the immutable smart contracts still must be ownable; (2) they aren't contracts; and (3) they aren't services. And accordingly, the immutable smart contracts are outside the scope of OFAC's designation authority.

1

Assuming we were to consider OFAC's regulatory definition of "property," the immutable smart contracts cannot qualify because they are incapable of being owned. Indeed, OFAC's regulatory definition embraces the plain meaning of "property," as OFAC merely provides a laundry list of "illustrative examples, all of which are items typically understood as belonging to individuals or entities."⁵³ For example, according to OFAC, "[t]he terms property and property interest include money, checks, drafts, . . . services of any nature whatsoever, contracts of any nature whatsoever, and any other property, real, personal, or mixed, tangible or

term," "fill up the details' of a statutory scheme," or "regulate subject to the limits imposed by a term or phrase that 'leaves agencies with flexibility, . . . such as 'appropriate' or 'reasonable.'" (emphasis added) (internal citations omitted)).

⁵³ See 31 C.F.R. § 510.323 ("The terms property and property interest include money, checks, drafts, bullion, bank deposits, savings accounts, debts, indebtedness, obligations, notes, guarantees, debentures, stocks, bonds, coupons, any other financial instruments, bankers acceptances, mortgages, pledges, liens or other rights in the nature of security, warehouse receipts, bills of lading, trust receipts, bills of sale, any other evidences of title, ownership, or indebtedness, letters of credit and any documents relating to any rights or obligations thereunder, powers of attorney, goods, wares, merchandise, chattels, stocks on hand, ships, goods on ships, real estate mortgages, deeds of trust, vendors' sales agreements, land contracts, leaseholds, ground rents, real estate and any other interest therein, options, negotiable instruments, trade acceptances, royalties, book accounts, accounts payable, judgments, patents, trademarks or copyrights, insurance policies, safe deposit boxes and their contents, annuities, pooling agreements, services of any nature whatsoever, contracts of any nature whatsoever, and any other property, real, personal, or mixed, tangible or intangible, or interest or interests therein, present, future, or contingent.").

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intangible, or interest or interests therein, present, future, or contingent.”⁵⁴ Common sense agrees—everything from money, mortgages, and merchandise to debts, debentures, and deeds is ownable.⁵⁵ Even “contracts of any nature whatsoever” and “services of any nature whatsoever” are intangible things in which individuals or organizations may own rights.⁵⁶

Even if these terms were not clear, canons of interpretation aid our understanding. For starters, the *noscitur a sociis* canon instructs that “particular words or phrases” should be understood “in relation to the words or phrases surrounding them.”⁵⁷ Applying that canon, “services,” “contracts,” and “any other property” should be interpreted similarly to the rest of OFAC’s laundry list of “property” examples—which are all things that are capable of being owned. *Ejusdem generis* adds additional clarity: “[W]hen a general term follows a specific one, the general term should be understood as a reference to subjects akin to the one with specific enumeration.”⁵⁸ “Any other property” is a general term following a list of specific ones, and thus, it should be construed—as should “any contracts”

⁵⁴ *Id.*

⁵⁵ *See id.*

⁵⁶ *See, e.g., Lynch v. United States*, 292 U.S. 571, 577 (1934); *Commissioner v. Covington*, 120 F.2d 768, 771 (5th Cir. 1941) (HOLMES, J., concurring).

⁵⁷ *United States v. Koutsostamatis*, 956 F.3d 301, 307 n.2 (5th Cir. 2020); *see also United States v. Lauderdale Cnty., Mississippi*, 914 F.3d 960, 966 (5th Cir. 2019) (“[W]e rely on the principle of *noscitur a sociis*—a word is known by the company it keeps—to ‘avoid ascribing to one word a meaning so broad that it is inconsistent with its accompanying words, thus giving unintended breadth to the Acts of Congress.’” (citing *Yates v. United States*, 574 U.S. 528, 543 (2015))); ANTONIN SCALIA & BRYAN A. GARNER, *READING LAW: THE INTERPRETATION OF LEGAL TEXTS* 176–79 (2011).

⁵⁸ *Ali v. Fed. Bureau of Prisons*, 552 U.S. 214, 223 (2008) (quoting *Norfolk & Western R. Co. v. Train Dispatchers*, 499 U.S. 117, 129 (1991)); *see also* SCALIA, *supra* note 57, at 180–90.

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and “any services”—as a reference akin to the lengthy list of exemplar, ownable property.⁵⁹

To evade this requirement of “ownership,” the Department conflates a separate element of the statute, “interest,” with “property” to suggest that “Tornado Cash profits from—and therefore has an interest in—the smart contracts that embody the mixing service it provides” and are thus analogous to patents and copyrights, which are undisputedly within the scope of OFAC’s definition of property.⁶⁰ But Tornado Cash smart contracts are different from patents and copyrights in two important ways.

First, Tornado Cash doesn’t profit from the immutable smart contracts at issue in this appeal. Some relayers and TORN token holders may receive fees from using the *mutable* relayer-registry smart contracts, but not from the immutable pool smart contracts. The Department has failed to provide us with evidence that *any* foreign nationals chose to stake their TORN and thus receive relayer fees. Nor does the record suggest that Tornado Cash itself, which is the designated “entity,”⁶¹ receives fees from transactions through either mutable or immutable contracts. And none of the immutable smart contracts entitle the smart-contract creators to a benefit.

⁵⁹ See, e.g., *Washington State Dept. of Social and Health Servs. v. Guardianship Estate of Keffeler*, 537 U.S. 371, 375 (2003) (finding “other legal process” was limited to legal processes of the same nature as the specific items listed immediately preceding); *Dolan v. Postal Service*, 546 U.S. 481, 486–89 (2006); *United States v. Aguilar*, 515 U.S. 593, 615 (1995) (SCALIA, J., concurring in part and dissenting in part) (rejecting the applicability of *ejusdem generis* to an omnibus clause that was “one of ... several distinct and independent prohibitions” rather than “a general or collective term following a list of specific items to which a particular statutory command is applicable”).

⁶⁰ See 31 C.F.R. § 510.323 (“The terms property and property interest include . . . patents, trademarks or copyrights . . .”).

⁶¹ We take no position on whether Tornado Cash qualifies as an “entity” under the International Emergency Economic Powers Act.

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Second, patents and copyrights *are* ownable, just like everything else in OFAC’s regulatory definition. Though they are intangible, someone owns the right to the protections and benefits offered by patents and copyrights.⁶² The same cannot be said for these smart contracts. And, in any event, as the Tornado Cash users note, this justification for the regulation was not included in the Department’s evidentiary memorandum and thus may not be used now.⁶³

As a last resort, the Department emphasizes the final catch-all for “any other property.” But the catch-all is not as expansive as the Department suggests; it still requires that “any . . . property” actually be, well, *property*. Adding an “any” before a word doesn’t change that word’s meaning.⁶⁴

Because even OFAC’s regulatory definition requires that property be ownable, the immutable smart contracts are beyond the scope of OFAC’s blocking power.

2

OFAC’s definition of property includes “contracts of any nature whatsoever,”⁶⁵ but contrary to the Department’s argument (and the

⁶² See, e.g., *Matter of Imperial Petroleum Recovery Corp.*, 84 F.4th 264, 272–73 (5th Cir. 2023) (referring to ownership of intangibles, including patents and intellectual property); *Polaris PowerLED Techs., L.L.C. v. Samsung Elecs. Am., Inc.*, No. 2:17-CV-00715-JRG, 2019 WL 1399927, at *3 (E.D. Tex. Mar. 28, 2019) (referring to ownership of patent); *Goodman v. Lee*, 78 F.3d 1007, 1012 (5th Cir. 1996) (referring to ownership of copyright).

⁶³ See *SEC v. Chenery Corp.*, 332 U.S. 194, 196 (1947).

⁶⁴ See 50 U.S.C. § 1702(a)(1)(B); cf. *Ali*, 552 U.S. at 219 (“Read naturally, the word ‘any’ has an expansive meaning, that is, ‘one or some indiscriminately of whatever kind.’” (quoting *United States v. Gonzales*, 520 U.S. 1, 5 (1997))).

⁶⁵ 31 C.F.R. § 510.323.

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misleading name of the software), the immutable smart contracts are not contracts.

The Department contends—and the district court agreed—that the immutable smart contracts “are merely a code-enabled species of unilateral contracts,” and “Tornado Cash promoted and advertised the contracts and its abilities and published the code with the intention of people using it—hallmarks of a unilateral offer to provide services.” But in so finding, the district court ignored basic principles of black-letter contract law: Unilateral or not, contracts require “[a]n agreement between two or more parties.”⁶⁶ Immutable smart contracts have only one party in play.

Compare mutable and immutable smart contracts. Mutable smart contracts “could, at most, facilitate the creation of a contract between the smart contract’s operator and a third party” through use of the smart contract, “but the smart contract is not itself a contract.” For example, if a mixer was mutable—or in other words, controllable or custodial—the mixer’s operator or owner could *offer* to mix deposits, which a third-party user could accept by transferring Ether to the operator’s mixer-smart contract. The operator controlling the smart contract would *use* the mixer-smart contract to fulfill the contract by taking control of the third-party user’s deposit, mixing the third-party user’s deposit with others in the pool, then withdrawing the deposit to another account, as determined by the third-party user. In that case, someone is always handling the Ether.

On the other hand, when choosing to use or interact with an *immutable* smart contract, a third-party user could make an offer, but there is no smart-contract operator on the other side of the transaction to accept or make a counteroffer—just software code. Because no one can control immutable

⁶⁶ *Contract*, BLACK’S LAW DICTIONARY 404 (12th ed. 2024).

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smart contracts (or the Ether deposited in the pools), there is no party with which to contract.

Furthermore, unilateral contracts can be revoked “at any time until performance has been completed by the offeree.”⁶⁷ Even assuming the Tornado Cash developers made an offer by creating the smart contracts and publicizing the code to be used for mixing and pooling, they revoked their offer—and any role in it—by changing the code to be immutable, thus running independently and autonomously. And regardless of whether Tornado Cash advertises the immutable smart contracts on its website, that does not change the simple fact that Tornado Cash does not—and cannot—own or control them.

The district court analogized to a vending machine to find the immutable smart contracts are unilateral contracts. But even if the immutable smart contracts were, at some point, a “vending machine,” they are no longer. For example, a vending machine has an owner—or counter-party—who can exercise some control over it. He can update or remove inventory *or* can unplug, move, or, if he so chose, destroy the vending machine. And the vending machine’s owner can revoke the open offer to purchase snacks or drinks at a set price (by turning off the vending machine). But here, Tornado Cash has no control over these immutable smart contracts. It cannot change the code, delete the code, or remove the code from the Ethereum blockchain network. In other words, Tornado Cash cannot “unplug” the immutable smart contracts. Even if Tornado Cash did not want North Korea, the

⁶⁷ *Williston on Contracts* § 5:15 (citing Restatement (Second) of Contracts § 45); *see also* 1 Richard A. Lord, *Williston on Contracts* § 5:10 (4th ed. online) (last updated May 2023); *Restatement (Second) of Contracts* § 42 (1981) (stating that “[a]n offeree’s power of acceptance is terminated when the offeree receives from the offeror a manifestation of an intention not to enter into the proposed contract”).

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Lazarus Group, or anyone else, for that matter, using the immutable smart contracts that the Tornado Cash developers created, Tornado Cash—let alone the Department—would be powerless to stop them. Though there is a potential argument that there were revocable offers prior to 2020—though we see none—the offers were revoked permanently when the smart contracts became immutable and the Tornado Cash developers removed any ability to control or own those smart contracts.

The blockchain caselaw relied upon by the district court is not to the contrary. Indeed, those cases accepted the allegations in the respective complaints as true at the motion-to-dismiss stage,⁶⁸ did not suggest the at-issue smart contracts were immutable,⁶⁹ and recognized that the smart contracts which qualified as “contracts” involved multiple parties.⁷⁰

The Department points to some state laws that have been passed to ensure “[n]o contract relating to a transaction shall be denied legal effect, validity, or enforceability solely because that contract is executed through a

⁶⁸ See *Snyder v. STX Techs., Ltd.*, No. 19-6132 RJB, 2020 WL 5106721, at *2–3, 5 (W.D. Wash. Aug. 31, 2020).

⁶⁹ See *Williams v. Block one*, No. 20-CV-2809 (LAK), 2022 WL 5294189, at *2 n.19 (S.D.N.Y. Aug. 15, 2022) (“Smart contracts ‘are programs that verify and enforce the negotiation or performance of binary contracts’ and ‘thus are self-executing and self-enforcing, making the transactions more secure and less costly.’” (internal citation omitted)); *id.* at *3.

⁷⁰ See *In re Bibox Grp. Holdings Ltd. Sec. Litig.*, 534 F. Supp. 3d 326, 330 (S.D.N.Y. 2021) (“A smart contract allows the *parties* to define the terms of their contract and submit the crypto-assets contemplated in the contract to a secure destination. The smart contract then automatically distributes the crypto-assets *to the appropriate party* upon the satisfaction of the relevant conditions precedent defined in the smart contract.” (emphases added)); *Rensel v. Centra Tech, Inc.*, No. 17-24500-CIV, 2018 WL 4410110, at *10 (S.D. Fla. June 14, 2018) (“Smart contracts are self-executing contracts with the terms of the agreement *between buyer and seller* being directly written into lines of code.” (emphasis added)).

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smart contract.”⁷¹ But those laws seem to target *automatic* operation of a contract (how smart contracts operate) between two willing parties through software, rather than supposed “contracts” *with a software*. Indeed, those laws do not recognize the difference between mutable smart contracts—in which there is a party controlling the software, and thus, a party with which to contract—and immutable smart contracts—in which there is no party with which to contract.

Accordingly, the immutable smart contracts—regardless of their misleading name—are not “contracts” under OFAC’s definition of “property.”

3

The Department also contends that the immutable smart contracts qualify as “services of any nature whatsoever.”⁷² But the immutable smart contracts “*provide . . . services*”; they are not services themselves.

In the Department’s view, a service is “the performance of some useful act or series of acts for the benefit of another, us[ually] for a fee.”⁷³ But according to Black’s Law Dictionary, “[i]n this sense, *service* denotes an intangible commodity in the form of human effort, such as labor, skill, or advice.”⁷⁴ No human effort is expended by the immutable smart contracts. And even by the Department’s definition, the immutable smart contracts, which are nothing more than lines of code, are less like a “service” and more

⁷¹ TENN. CODE. ANN. § 47-10-202(c); *see also, e.g.*, ARIZ. REV. STAT. ANN. § 44-7061 (similar).

⁷² *See* 31 C.F.R. § 510.323.

⁷³ *See* Brief of Appellee at 24 (citing *Service*, BLACK’S LAW DICTIONARY (11th ed.)).

⁷⁴ *Service*, BLACK’S LAW DICTIONARY (12th ed.).

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like a tool that *is used in performing* a service.⁷⁵ That is not the same as *being* a service.

The software codes here—the twenty Tornado Cash addresses for immutable smart contracts—are *tools* used in providing a service of pooling and mixing the deposited Ether prior to withdrawal. Indeed, the immutable smart contract provides a “service” only when an individual cryptocurrency owner makes the relevant input and withdrawal from the smart contract; at that point, and only at that point, the immutable smart contract mixes deposits, provides the depositor a withdrawal key, and, when provided with that key, sends the specified amount to the designated withdrawal account. In short, the immutable smart contract begins working only when prompted to do so by a deposit or entry of a key for withdrawal.

More importantly, Tornado Cash, as defined by OFAC, does not own the services provided by the immutable smart contracts. A homeowner may own the right to trash-removal services and a client may own the right to legal services performed by a lawyer, but neither the homeowner nor the client owns the person performing the trash-removal services or the lawyer—for good reason. Similarly, Tornado Cash as an “entity” does not own the immutable smart contracts, separate and apart from any rights or benefits of the services performed by the immutable smart contracts.⁷⁶

⁷⁵ A tool is “something (such as an instrument or apparatus) used in performing an operation” *Tool*, MERRIAM-WEBSTER, <https://www.merriam-webster.com/dictionary/tool> [<https://perma.cc/M2Y5-L26L>] (last accessed Sept. 19, 2024).

⁷⁶ *Ante*, at 26–27. We take no position on whether Tornado Cash as an “entity,” as defined by the Department, has an “interest” in the immutable smart contracts under the International Emergency Economic Powers Act.

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Contrary to the Department’s arguments, the immutable smart contracts are not services. So even when we consider OFAC’s regulatory definitions, the immutable smart contracts are not property because they are not ownable, not contracts, and not services.

V

“Our Constitution’s ingenious design demands that judges be sticklers when it comes to decoding legislative text.”⁷⁷ Because these immutable smart contracts are not “property” under the word’s common, ordinary meaning or under OFAC definitions, we hold that OFAC exceeded its statutory authority. Accordingly, we need not address whether Tornado Cash qualifies as an “entity” or whether it has an “interest” in the immutable smart contracts.

We readily recognize the real-world downsides of certain uncontrollable technology falling outside of OFAC’s sanctioning authority. Presidential administrations are rightly concerned with malicious cyber-enabled activities, and IEEPA became law in 1977, years before the modern Internet was even invented. But we must uphold the statutory bargain struck (or mis-struck) by Congress, not tinker with it. “[T]he foremost task of legal interpretation is divining what the law *is*, not what the judge-interpreter *wishes* it to be.”⁷⁸ IEEPA grants the President broad powers to regulate a variety of economic transactions, but its language is not limitless. Mending a statute’s blind spots or smoothing its disruptive effects falls outside our lane. We decline the Department’s invitation to judicial lawmaking—revising

⁷⁷ *Reed v. Taylor*, 923 F.3d 411, 415 (5th 2019).

⁷⁸ *Id.*

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Congress’s handiwork under the guise of interpreting it. Legislating is Congress’s job—and Congress’s alone.⁷⁹

Accordingly, we REVERSE and REMAND to the district court with instructions to grant Van Loon’s partial motion for summary judgment based on the Administrative Procedure Act.

⁷⁹ See, e.g., *Epic Sys. Corp. v. Lewis*, 584 U.S. 497, 511 (2018) (“[I]t’s the job of Congress by legislation, not this Court by supposition, both to write the laws and to repeal them.”); *Gamble v. United States*, 587 U.S. 678, 717 (2019) (J. THOMAS, concurring) (“The Constitution, federal statutes, and treaties are the law, and the systematic development of the law is accomplished democratically. Our judicial task is modest: We interpret and apply written law to the facts of particular cases.”).