

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF PENNSYLVANIA

<p>UNITED STATES OF AMERICA,</p> <p>v.</p> <p>ZHENGCHANG HUANG, <i>Defendant.</i></p>	<p>CRIMINAL NO. 24-145</p>
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Baylson, J.

October 9, 2025

MEMORANDUM OF LAW RE: FORFEITURE

I. INTRODUCTION

On April 10, 2024, a federal grand jury returned a single-count indictment with notice of forfeiture charging Defendant Zhengcheng Huang¹ (hereinafter “Huang”) with conspiracy to distribute oxycodone in violation of 21 U.S.C. §§ 846, 841(a)(1), (b)(1)(C). Gov’t Mem. at 1, ECF 33. Mr. Huang pled guilty to the indictment on February 28, 2025. *Id.* There was no guilty plea agreement. *Id.* The Government now seeks forfeiture of approximately 199.47 bitcoin,² which were recovered from a device seized during the execution of a search warrant at Mr. Huang’s residence, as proceeds from the conspiracy, pursuant to 21 U.S.C. § 853. *Id.* at 2, 12. Mr. Huang contests the forfeiture. Def. Mem. at 1, ECF 38.

A hearing on forfeiture was initially scheduled for June 18, 2025. ECF 27. On May 14, 2025, Mr. Huang filed an unopposed motion to continue the forfeiture and sentencing hearings,

¹ Mr. Huang is a Lawful Permanent Resident of the U.S. and citizen of China. Gov’t Mem. at 3, ECF 33.

² The Court will refer to the Bitcoin system as a whole with an uppercase “B” and specific units of bitcoin with a lowercase “b.” See *United States v. Patel*, No. 23-CR-166 (DLF), 2024 WL 1932871, at n.1 (D.D.C. May 1, 2024).

which the Court granted. ECF 34, 37. The Court held an evidentiary forfeiture hearing on September 16, 2025, pursuant to Federal Rule of Criminal Procedure 32.2(b)(1)(B).³ Geoffrey Gordon,⁴ Special Agent for Homeland Security Investigations (“HSI”), testified about the Government’s investigation. The parties also stipulated that the Defense could present a statement of what Ms. Zheng Ling, Mr. Huang’s aunt, would say if she were present to testify.⁵ Because the undersigned has not had the occasion to write memoranda specifically on the topic of Bitcoin, the Court requested citations from counsel of cases discussing cryptocurrency evidence and other substantive legal issues raised at the hearing. The Government filed its supplemental brief on September 26, 2025, (Gov’t Supp. Mem., ECF 54) and the Defense replied on October 3, 2025 (Def. Supp. Mem., ECF 56).

Now before the Court are two issues: (1) whether the 199.47 bitcoin are forfeitable under 21 U.S.C. § 853; and (2) whether the forfeiture of 199.47 bitcoin would constitute an excessive fine under the Eighth Amendment of the United States Constitution. Having considered the arguments of counsel and the evidence presented, the Court is now ready to issue a preliminary order of forfeiture. This memorandum constitutes the Court’s findings of fact and conclusions of

³ As soon as practicable after a plea of guilty is accepted, on any count where forfeiture is sought, “the court must determine what property is subject to forfeiture under the applicable statute.” Fed. R. Crim. P. 32.2(b). Further, “the court’s determination may be based on evidence already in the record, including any written plea agreement or, if the forfeiture action is contested, on evidence or information presented by the parties at a hearing after the verdict or finding of guilt.” *Id.* If the court finds the property is forfeitable (finding a sufficient nexus between the property and the offense), a preliminary order of forfeiture is entered. *Id.* The preliminary order of forfeiture becomes final at sentencing. *Id.*

⁴ Special Agent Gordon has been with HSI for about 15 years and has been assigned to the cyber crimes investigative group for the past three years. Hr’g Tr. 6:20–25, ECF 53.

⁵ The Government did not stipulate to the truth of Ms. Zheng’s statements, only that the statements reflect what Ms. Zheng would say if she were to testify in person. Hr’g Tr. 5:5–14. The Government disputes the veracity of her statements. *Id.* at 5:15–16.

law in support of the preliminary order of forfeiture.

II. FINDINGS OF FACT

a. Tracking the Source of the Oxycodone

1. Mr. Huang, along with co-conspirators, operated a large-scale drug trafficking group, doing business principally through darknet⁶ marketplaces using the drug vendor name, “Chinodrug.” Indictment ¶ 5, ECF 1-2. Mr. Huang joined the conspiracy in 2018 and became its leader in 2021. Hr’g Tr. 81:17–25, 82:1, ECF 53.
2. The investigation into the conspiracy began in 2022 with an individual from Bucks County, Pennsylvania (“Bucks County Buyer” or “BCB”) who had been sending virtual currency allegedly worth tens of thousands of dollars to darknet marketplaces. Id. at 9:24–25; 10:1–2. A darknet marketplace allows users to browse and purchase items with greater anonymity than traditional online marketplaces. Id. at 11:1–14. The Bucks County Buyer admitted to purchasing large quantities of oxycodone, predominantly from a vendor called Chinodrug, through a darknet marketplace called ASAPMARKET. Id. at 7:14–21, 10:2–16. BCB had purchased oxycodone pills from Chinodrug approximately 30 times, and each time purchasing hundreds of pills and paying thousands of dollars in Bitcoin.⁷ Id. at 12:21–25, 13:3–5. The pills were shipped to BCB’s residence via the U.S. Postal Service. Id. at 13:3–5.

⁶ The darknet is an internet system often used for criminal conduct that operates on a special software known as “The Onion Router” or “TOR.” Hr’g Tr. 7:14-23. The software allows individuals to access the dark network almost anonymously and makes it difficult to trace users’ activity. Id. Because of the anonymity, the network is widely used for criminal activity. Id.

⁷ Chinodrug customers could purchase a certain quantity of oxycodone, which would cost a certain U.S. dollar amount. Hr’g Tr. 35:2–9. To execute the payment transaction, the customer would then purchase a certain amount of Bitcoin that, at the time, was allegedly equivalent to the U.S. dollar price of the drugs, and send that to a Chinodrug wallet. Id. Once Chinodrug received the Bitcoin and accepted its valuation, it would ship the drugs to the customer. Id.

3. On April 4, 2023, the Government visited Chinodrug’s page on ASAPMARKET and viewed its active listings. See ECF 33, Exhs. 1, 2. The Government’s exhibits show Chinodrug’s marketplace page with customer reviews and a list of products offered for sale, including “*Percocet 5/325mg Oxycodone*,” “*Sevoflurane Ultane/Sojourn/Sevorane 250*,” “*OXYCONTIN, Mundi OC, USA, 80x10mg*,” “*Oxycodone Percocet 5/325mg Oxycodone (ip 512)*,” and “**USA* 20 ct Oxycotin 40s Fully Crush-able, IV able, No Gelling*.” Id. In a posting from March 22, 2020, Chinodrug informed customers of its shipping procedures, writing:

“We need your cooperation, so we can keep up our services for you for much longer time with safety and security... I only ship with USPS Priority Mail (takes 2-3 working days). -Stealth packaging is always provided. Products are hidden inside a decoy item. Please be on the lookout ... and ... The return address on the package is fake and is changed often, any returned package will be lost and will not be refunded/re-shipped.”

ECF 33 at 4.

4. The Bucks County Buyer had an order in transit from Chinodrug during the Government’s investigation. Hr’g Tr. 13:13–20. He alerted investigators when it arrived and gave the Government consent to search it. Id. The package contained pills stamped with “Mundi Pharmaceutical” and Chinese language characters. Id. at 13:22–25; 14:1–6. The Pennsylvania State Police Laboratory confirmed that they were authentic oxycodone pills. Id. at 14:1–6. Mundi Pharmaceuticals confirmed, by the lot numbers on the pill blister packs, that it had manufactured the pills for the Chinese pharmaceutical market. Id. at 14:7–10.
5. Next, the Government examined the postage on the Chinodrug package and linked it to a Stamps.com account. Id. at 14:19–22. The transaction history from the account showed “approximately 30-some packages” had been sent to the Bucks County Buyer, in line

with BCB's personal records. Id. at 15:1–4. All the shipments to BCB had return addresses of Seattle-area businesses, like the package the government seized, and were shipped from the Seattle-area. Id. at 15:5–11. The account contained over 15,000 similar shipments, with return addresses of Seattle-area businesses, mailed to addresses across the United States beginning around 2018. Id.

6. In response to a government subpoena, Stamps.com identified a shipping company that owned the account. Id. at 14:23–25. The shipping company owner explained that he allows customers to use the company's Stamps.com account and reimburse him for the postage. Id. at 15:22–25. He had one customer who went by the name "Chino" and only spoke to him over the phone in Chinese. Id. at 16:1–7. Chino only used the company's services to purchase postage and paid for it by depositing Chinese currency into the owner of the shipping company's Chinese bank account. Id. The owner of the shipping company did not want to be paid in Bitcoin, but Chino frequently requested to pay in Bitcoin. Id. at 16:11–17. On one occasion, the owner accepted payment in the form of about \$500 worth of bitcoin. Id. at 16:11–17. Special Agent Gordon described this as "the key to the entire investigation." Id. at 16:19.

b. Bitcoin Explanation in the Record

7. Using the transaction identification information of the Bitcoin payment provided by the shipping company owner, the Government was able to trace the path of the Bitcoin exchanged and ultimately identify the Bitcoin wallets owned by Chinodrug. Id. at 16:19–23.
8. Bitcoin is a form of virtual currency. Id. at 26:10–18. It is not issued by a central bank

or backed by a government.⁸ Id. Bitcoin is often used for criminal activity because funds can be sent across borders quickly without government intervention. Id. at 30:7–12. The transactions are considered secure because they are recorded on the blockchain, a ledger containing every transaction in the history of Bitcoin. Id. at 26:10–18; see also United States v. Sterlingov, 719 F. Supp. 3d 65, 68 (D.D.C. 2024) (explaining the blockchain is “a decentralized, immutable, public ledger available to anyone with an interest in looking”). “In simplified terms, transferring or using bitcoin requires three things: (1) a sending address, (2) a receiving address, and (3) a private encryption key.” Sterlingov, 719 F.Supp. at 69. “An address is a long string of letters and numbers ... and is similar to a bank account number.” Id. The blockchain records “only the sender’s address, the receiver’s address, and the amount of bitcoin transferred” at a unique timestamp. Id. at 70 (citation omitted).

9. Special Agent Gordon used a software called “Chainalysis,”⁹ combined with subpoenas, witness interviews, and other investigative techniques to begin to verify the origin and ownership of the bitcoin flowing through Chinodrug’s control. Hr’g Tr. 29. By tracking the flow of Bitcoin from darknet marketplaces and cryptocurrency exchanges into Chinodrug wallets, identified by the Stamps.com payment, the Government estimated approximately 200 bitcoin were in Chinodrug’s control and came from payments for drug

⁸ “Bitcoin is a purely online virtual currency, unbacked by either physical commodities or sovereign obligation.” Sarah Meiklejohn *et al.*, A Fistful of Bitcoins: Characterizing Payments Among Men with No Names, at 1 (Oct. 2013), <https://cseweb.ucsd.edu/~smeiklejohn/files/imc13.pdf>. The Bitcoin currency “relies on a combination of cryptographic protection and peer-to-peer protocol for witnessing settlements.” Id.

⁹ For an in-depth explanation of how the Chainalysis software works, see Sterlingov, 719 F. Supp. at 71–75.

trafficking. Id. at 21–22. However, the investigators did not know who in the Chinodrug network had control over the 200 bitcoin. Id. at 22:3–9. The Government presented their investigation, along with evidence of Mr. Huang’s criminal activities, to a grand jury to secure the indictment of Mr. Huang. Id.

c. The Arrest of Defendant Huang

10. Using blockchain analysis, HSI agents began to identify the network of real people who were operating Chinodrug. Id. at 17:13–20. They were first able to connect Mr. Huang, specifically, with the conspiracy when local police responded to the burglary of several storage units at a storage facility in Kent, Washington in February 2023. Id. at 17:21–25. In one of the storage units, police found 83,613 oxycodone pills that were consistent with the ones recovered from the Bucks County Buyer’s package. Id. at 18. The facility’s security footage from the days leading up to the burglaries showed Mr. Huang repeatedly going in and out of the storage unit, where thousands of pills were later recovered, wearing blue gloves and carrying bags. Id. at 19–20; see also Gov’t Mem. Exh. 6.
11. After the storage facility robbery, Mr. Huang fled the U.S. and went to Canada. Hr’g Tr. 20:9–11. Around the same time, Chinodrug posted on its ASAPMARKET page that there would be a delay in shipments. Id. at 20:15–19. Mr. Huang continued to control the digital infrastructure of the Chinodrug organization from abroad. Id. at 20–21. He returned to the United States in August of 2023, when he flew from Asia to Hawaii. Id. at 21:6–7.
12. The Government executed arrest and search warrants at Mr. Huang’s residence in Kent, Washington on April 17, 2024, where they found Mr. Huang and other evidence of drug trafficking activities. Id. at 22. Agents seized several digital devices including an

iPhone, a computer that had the TOR darknet software, and a “Trezor” wallet, which is a password-protected digital device used to securely maintain virtual currency. Id. at 23.

Mr. Huang exercised his right to remain silent, so the Government was unable to get into the Trezor wallet. Id. at 24. However, digital forensic examiners found passkeys for the Bitcoin addresses in the Trezor wallet in Mr. Huang’s iPhone, allowing the Government to access the approximately 200 bitcoin in the Trezor wallet and seize it. Id. at 25–26.

d. Tracing the Origin of the Trezor Wallet Bitcoin

13. Special Agent Gordon organized his findings in a chart, which the Government presented as Exhibit 1 at the hearing. See ECF 44 at 5 (“Gov’t Exh. 1”). The chart includes several nodes (colored circles) that represent clusters or individual bitcoin addresses where bitcoins are digitally stored. Hr’g Tr. at 32:5–13. Chainalysis identified each node or cluster as attributable to specific entities. Id. Investigators identified five clusters (also known as wallets), as well as two non-cluster addresses and the Trezor device, which were controlled by Chinodrug and contained Bitcoin. Gov’t Exh. 1. At the center of the chart is a circular node labeled “Chinodrug 1.” Gov’t Exh. 1. This represents a cluster of bitcoin addresses where Chinodrug stored some of its proceeds¹⁰ and was the wallet that made the payment for the Stamps.com postage. Id. See also Hr’g Tr. 34:11–15. The “Chinodrug 1” wallet received 13.4 bitcoin from ASAPMARKET. Hr’g Tr. 34:14. It received 4.13 bitcoin from another darknet marketplace called INCOGNITO Market, 15.3 bitcoin from Coinbase.com, a virtual currency exchange, 4.6 bitcoin from Cash.App, another virtual currency exchange, and additional bitcoin from other wallets.

¹⁰ “[E]ach circle in this chart is either a cluster ... or a specific Bitcoin address[.]” Hr’g Tr. 32:5–13. Using Chainalysis, the Government can “identify these clusters of Bitcoin addresses and attribute them to specific entities.” Id.

Gov't Exh. 1.

14. Coinbase provided the government with records of customers who initiated transactions to one of the five Chinodrug wallets. Hr'g Tr. at 37. These names were consistent with those found in the Stamps.com records who received Chinodrug shipments. Id. Cash.App also identified the customers who sent money to Chinodrug wallets, pursuant to a government subpoena. Id. at 38. These names were also consistent with those found in the Stamps.com records who received Chinodrug shipments. Id.
15. About 140 of the bitcoin in the Trezor wallet were traceable to bitcoin wallets hosted by "HTX.com," a currency exchange based in China, similar to Coinbase. Hr'g Tr. 41:1–4, 44:6–15; Gov't Exh. 1. The HTX account was controlled by Mr. Huang and used for Chinodrug's trafficking activity. Gordon Decl. ¶ 8, ECF 33-1.
16. The HTX wallets had six different sources. Hr'g Tr. 44:6–15. These sources included a Chinodrug wallet, darkweb markets, and virtual exchanges. Gov't Exhs. 1, 3, 4. The virtual exchanges that funded the HTX account were not large single transactions but rather many small transactions—approximately 1,898 Bitcoin deposits that totaled all together 185 bitcoin. Hr'g Tr. 57:9–15. The creation dates for the HTX accounts in question were September 16, 2019, and March 13, 2020. Id. at 93:2–3.
17. The Government did not find any evidence that Mr. Huang had a job or any source of lawful income throughout its extensive financial analysis investigation. Id. at 52:18–22. Defendant has provided no reliable evidence that he was employed.

III. LEGAL STANDARD

Federal Rule of Criminal Procedure 32.2 provides that "[a]s soon as practical after a verdict or finding of guilty ... on any count in an indictment ... regarding which criminal

forfeiture is sought, the court must determine what property is subject to forfeiture under the applicable statute.” Fed. R. Crim. P. 32.2(b)(1)(A). If the Government “seeks forfeiture of specific property, the factfinder must determine whether the Government has ‘established the requisite nexus between the property and the offense.’” United States v. Mongol Nation, 56 F.4th 1244, 1252 (9th Cir. 2023) (quoting Fed. R. Crim. P. 32.2(b)(1)(A)); see also United States v. Cheeseman, 600 F.3d 270, 274 (3d Cir. 2010). The Court may consider “evidence already in the record ... and ... any additional evidence or information submitted by the parties and accepted by the court as relevant and reliable.” Fed. R. Crim. P. 32.2(b)(1)(B).

The Government seeks forfeiture pursuant to 21 U.S.C. § 853, which provides in pertinent part as follows:

Any person convicted of a violation of this subchapter or subchapter II of this chapter punishable by imprisonment for more than one year shall forfeit to the United States, irrespective of any provision of State law—

- (1) any property constituting, or derived from, any proceeds the person obtained, directly or indirectly, as the result of such violation;
- (2) any of the person's property used, or intended to be used, in any manner or part, to commit, or to facilitate the commission of, such violation;....

21 U.S.C. § 853(a). The types of property which are subject to forfeiture pursuant to § 853 include “(1) real property, including things growing on, affixed to, and found in land; and (2) tangible and intangible personal property, including rights, privileges, interests, claims, and securities.” 21 U.S.C. § 853(b).

The Government has the burden of proving the property is subject to forfeiture by the preponderance of the evidence. See United States v. Voigt, 89 F.3d 1050, 1084 (3d Cir. 1996); see also, United States v. Crews, 885 F. Supp. 2d 791, 793 (E.D. Pa. 2012), aff'd sub nom. United States v. Miller, 645 F. App'x 211 (3d Cir. 2016) (citing United States v. Prather, 456 F.App'x. 622, 625 (8th Cir.2012)). Taken together, the provisions of § 853 “limit forfeiture

... to tainted property,” either “flowing from” the criminal offense as proceeds, or “used in” facilitation of the offense. Honeycutt v. United States, 581 U.S. 443, 449 (2017).

The first prong of tainted property, i.e. the proceeds prong, covers all “ill-gotten gains” including derivative property that was indirectly purchased or maintained using the proceeds of illegal transactions. United States v. Young, 330 F. Supp. 3d 424, 429 (D.D.C. 2018). The second prong, i.e. the facilitation prong, covers “property that, while not tainted at its origin like proceeds, *becomes* tainted because it is used in furtherance of the illegal activity.” Id. If the Court finds that property is subject to forfeiture pursuant to 21 U.S.C. § 853, it “enter[s] a preliminary order of forfeiture[.]” Fed. R. Crim. P. 32.2(2)(A). The preliminary order of forfeiture becomes final as to the defendant at sentencing. Fed. R. Crim. P. 32.2(4)(A).

IV. DISCUSSION

a. The 199.47 Bitcoin Is Forfeitable

To prove proceeds, the government need only show the property more likely than not came from the drug trade conspiracy. Crews, 885 F. Supp. 2d at 793. If the property was acquired “during the period of the violation” or “within a reasonable time after such period” and “there was no likely source for such property other than the violation” then there is “a rebuttable presumption” that the property “is subject to forfeiture.” 21 U.S.C. §853(d). The Government demonstrated that the bitcoin recovered from the Trezor wallet were received during the time of the drug enterprise. Special Agent Gordon provided extensive testimony as to the origin of the 199.47 bitcoin. He explained that the bitcoin came from either darknet marketplaces (Hr’g Tr. 33:18–34:15) or cryptocurrency exchanges (Hr’g Tr. 36:3–9). The transactions into the Chinodrug wallets originated from small transfers of Bitcoin, characteristic of a drug purchase, as opposed to an investment of personal funds. See, e.g., Hr’g Tr. 44:18–25. Agent Gordon also

showed many of the owners of Coinbase or Cash.App accounts that sent money to Chinodrug wallets were the same people who showed up in the Stamps.com shipping records. Id. at 37–38.

The preponderance of the evidence suggests Mr. Huang did not have any other likely source of income during the time of the conspiracy, from 2018 to 2024. The Government asserts that Mr. Huang was not employed. The Defense did not contest this point until days after the forfeiture hearing in its supplemental brief, where Defendant Huang now claims he was employed. Def. Supp. Mem. at 8. However, Mr. Huang did not testify subject to cross examination as to his employment, nor did he provide a witness who could so testify, nor did he supply records of legitimate employment or paystubs. Therefore, the Court finds Defendant has not sufficiently rebutted the Government’s claim that he did not have a legitimate source of income from a lawful occupation.

Similarly, the Defense argues Mr. Huang’s aunt, Ms. Zheng, was a source of legitimate income. Ms. Zheng’s stipulated testimony indicated that she generated significant income, primarily through real estate investments and rentals, which she provided to Mr. Huang to invest in cryptocurrency. Declaration of Zheng Ling (“Zheng Decl.”), ECF 45. She stated she gave Mr. Huang “RMB 24 million¹¹ of revenue from sales of [real estate] assets under [her] name, ... plus about RMB 3 million of other revenue such as rental income, and about RMB 14 million of loans through various channels for his investment purposes.” Id. at 1. Ms. Zheng also stated that she transferred about RMB 1.4 million from her bank account to Mr. Huang’s bank account in 2014. Id. Ms. Zheng did not provide any records showing transfers of her money to Mr. Huang. If Mr. Huang had used any RMB to purchase Bitcoin, a record of that transaction would be

¹¹ RMB stands for Renminbi, also known as the Chinese Yuan. It is the official currency of the People’s Republic of China. ECF 45 at 1.

available from a digital currency exchange, and it would be recorded on the permanent blockchain ledger. The Defense did not provide any record that Mr. Huang purchased Bitcoin using Chinese currency, or any fiat currency. Meanwhile, the Government has been able to show (beyond its preponderance burden) that none of the Bitcoin in the Trezor wallet were originally purchased from a large expenditure of Chinese currency. Hr’g Tr. 56:5–13. Therefore, it is unlikely that any of the Trezor wallet Bitcoin came from an investment of Ms. Zheng’s money, assuming she did give it to Mr. Huang.¹²

¹² The court has a fully considered the statement presented by Ms. Zheng, as to what her testimony would be in this proceeding. By way of background, Defense counsel had first proposed she appear by Zoom, or some other method of remote testimony, during the forfeiture hearing. The Court was prepared to accommodate this request and discussed this briefly with counsel for both parties in a pre-hearing telephone conference on the record. ECF 43.

However, counsel subsequently stipulated to introduce Ms. Zheng’s declaration, which is now in the record. The Court assumes that Ms. Zheng would have given the same testimony if she had appeared on a live transmission as part of the evidentiary hearing. The Court must also consider that Defense counsel may have benefitted strategically because, had Ms. Zheng testified at the hearing, she would have been subject to cross examination. She was not available for cross examination as a result of the stipulation. Nonetheless, the Court is prepared to accept her statements as testimony.

Even considering her statements in the light most favorable to Defendant, Ms. Zheng does not provide sufficient facts about when or how she transferred money to Mr. Huang. The only specific instance of a transfer of funds that she describes is that she sent RMB 1.4 million to Mr. Huang in 2014, before this conspiracy began. Zheng Decl. at 1. She does not provide a bank record to support this statement. Nor does she provide specific facts or records about any other transfer of her money to Mr. Huang—the records she provided only reflect her own income. See Zheng Decl. at 8–10, 24–35 (Exhs. A&B). She also does not provide any facts about when or how her money was invested in cryptocurrency. Absent records of transactions between Ms. Zheng and Mr. Huang during the conspiracy, there is no objective evidence to corroborate that she gave money to Mr. Huang or that her money was invested in cryptocurrency at all. Ms. Zheng’s testimony is not sufficient to rebut the Government’s very strong evidence that the Bitcoin were acquired by Mr. Huang as payment for drug trafficking.

In sum, the shortcomings in Ms. Zheng’s testimony prevent the Court from considering her statements as reliable or fully credible. Even if the Court were to assign complete credibility to her assertions, the absence of factual specificity about the time, manner, and contents of transfers would prevent the Court from giving her testimony significant weight to rebut the Government’s evidence about the origin of the 199.47 bitcoin.

The Defense argues that “the most accurate way to calculate proceeds is to extrapolate it from the quantity of drugs sold and the price that they were sold for.” Def. Supp. Br. at 6-7. Even assuming that is the most accurate way to calculate proceeds, there is no caselaw holding that the Government needs to prove proceeds by the “most accurate” method. The caselaw holds the Government must show that property more likely than not came from criminal activity, and it may do so entirely with circumstantial evidence. See United States v. Green, 516 F. App’x. 113, 134–35 (3d Cir. 2013) (no direct evidence that defendant acquired a car with fraud proceeds, but the circumstantial evidence—e.g., that he purchased the car during the time he was committing the offense and had no other income—was sufficient). The Defense argues that because the Government has shipping records from the Stamps.com account, the most accurate proceeds calculation would be to prove the contents of each shipment (or estimate the contents based on the smallest quantity in the provable shipments) and base the forfeiture on the aggregate dollar value of the roughly 15,000 shipments.¹³ However, the Defense does not cite caselaw showing the Government has a burden of proof at such a level of detail that would require an accounting of the money generated from each shipment. In fact, the Defense cites no

¹³ The Defense is alternatively suggesting a substitute forfeiture under 21 U.S.C. § 853(p), which, in relevant part, allows forfeiture of substitute property if the proceeds or facilitating property “has been commingled with other property which cannot be divided without difficulty.” 21 U.S.C. § 853(p)(1)(E). However, the evidence does not suggest there is some portion of the 199.47 bitcoin that were legitimately obtained and have been commingled with Bitcoin that were proceeds of the trafficking. The Government need not trace the origin of every individual bitcoin transaction to meet its preponderance burden, as there is no presumption that a portion of the bitcoin was legitimately obtained, especially given the circumstantial evidence. The Government has shown that the 199.47 bitcoins were acquired during the conspiracy, in a manner characteristic of the drug trade. There is no reliable evidence that Defendant had another legitimate source of income, and Defendant has produced no record of transactions where he used legitimately obtained fiat currency to purchase Bitcoin. The Government’s tracing ruled out the possibility that any of the 199.47 bitcoin were purchased using Chinese currency, which is the currency Ms. Zheng claims she asked him to invest. Hr’g Tr. 56:9–13. Thus, the Court has no basis upon which to undergo a substitute property forfeiture analysis.

caselaw at all in the sections of either brief asserting its accuracy argument. See Def. Supp. Br. at 6-7, § III(A) (ECF 56); Def. Hr’g Mem. at 5 (ECF 38).

The Government has sufficiently shown that the 199.47 bitcoin in the Trezor wallet were, more likely than not, proceeds of the drug trafficking conspiracy. The Bitcoin came from darknet marketplaces or small transfers of bitcoin from digital currency exchanges that are characteristic of drug purchases. The Trezor wallet was found in Mr. Huang’s apartment, from which Mr. Huang operated the Chinodrug business. There was no other likely source of income with which Mr. Huang could have acquired Bitcoin. Even if he did have legitimate income, Mr. Huang did not provide records showing he purchased Bitcoin using fiat currency, which would be available on the blockchain and through whatever digital currency exchange account he used. Accordingly, the Court finds that the 199.47 bitcoin are proceeds of the Chinodrug trafficking operation and are subject to forfeiture.

b. Forfeiture of 199.47 Bitcoin Is Not Excessive

Defense next argues that because the 199.47 bitcoin allegedly has a present value of approximately \$23.9 million, it amounts to an excessive fine under the Eighth Amendment. Def. Supp. Mem. at 1. The Eighth Amendment instructs that “[e]xcessive bail shall not be required, **nor excessive fines imposed**, nor cruel and unusual punishments inflicted.” U.S. Const. amend. VIII (emphasis added).

As a preliminary matter, the Court is not inclined to accept the premise underlying the Defense’s argument, that the alleged U.S. dollar value of Bitcoin must be given weight in federal court when applying the Excessive Fines Clause.¹⁴ Article I, Section 8 of the United States

¹⁴ It is not a difficult task to find a metaphor for the Bitcoin phenomenon in the realm of opera. The term “darknet” and the concept of a virtual currency, such as Bitcoin, easily relates to the saga of Richard Wagner’s Ring—a series of four operas composed in the late 19th century but

Constitution gives Congress the exclusive power to “coin money, regulate the value thereof, and of foreign coin, and fix the standard of weights and measures.” U.S. Const. art. I, § 8, cl. 5.

Congress has not exercised its power to recognize Bitcoin as a currency of value. Though Bitcoin is part of a developing cryptocurrency industry, the Court is not aware of any binding precedent or legislation that recognizes Bitcoin’s value. Indeed, Bitcoin’s value is highly speculative, and courts are not in agreement even on how to classify Bitcoin under current regulatory schemes. See Coinbase, Inc. v. Sec. & Exch. Comm’n, 126 F.4th 175, 207 (3d Cir. 2025) (Bibas, J. concurring) (discussing the difficulty in defining cryptocurrency within the bounds of existing regulatory structures). 199.47 bitcoin could be worthless tomorrow, whereas \$20 million of legal tender currency is much less likely to become worthless. Therefore, the Court will consider the value of the forfeiture within the framework of Bitcoin itself as an “in

very much alive today.

In the first opera in the series, although the last to be composed, *Das Rheingold* features the dwarf, Alberich, in the opening scenes, residing in the dark depths of the Rhine River where he notices a quantity of gold near his habitat and eventually decides to steal it and fasten it into a gold ring which, along with his renunciation of love, will give him super powers.

Shortly after, the three Rhinemaidens swimming in the Rhine River, appear, notice the gold, and embark on a series of flirtations or teasing with Alberich. As the opera progresses, the gold may be found in some bricks used to build a castle for certain giants, and this becomes the basic substance for the construction of Valhalla, a magnificent castle for the gods, which in *Götterdämmerung*, the last opera, is destroyed in flames. Such may be the ultimate finale for Bitcoin.

In real life, we know that gold is very valuable—viz, the “gold standard.” In the Ring operas, however, although gold is discussed, it is never actually seen or turned into real money. Thus, it is just as “virtual” as Bitcoin. However, this Court must reject the alleged values of Bitcoin on which the Defense arguments heavily rely, as unsubstantiated by any real-life transactions. Indeed, the great quantities of Bitcoin have neither been seen, touched, or held. No one knows for sure what will be the outcome of adventures in Bitcoin as it is not a currency backed by gold or guaranteed by any sovereign nation, and it may someday go up in flames just as Valhalla in Wagner’s opera.

kind” payment, not as a currency or an equivalent to United States legal tender. See, e.g., United States v. Hallinan, 2018 WL 3141533, at *10 (E.D. Pa. June 27, 2018), aff’d sub nom. United States v. Neff, 787 F. App’x 81 (3d Cir. 2019) (remarking that interest, fees, and principal of a loan extended using drug proceeds are “forfeitable, regardless of how lucrative the additional loans became.”)

The Excessive Fines Clause “limits the government’s power to extract payments, whether in cash or in kind, ‘as punishment for some offense.’” United States v. Bajakajian, 524 U.S. 321, 328 (1998) (quoting Austin v. United States, 509 U.S. 602, 610 (1993)). A forfeiture is not a “fine” within the meaning of the Eighth Amendment unless the forfeiture “constitute[s] punishment for an offense.” Id. There are three types of asset forfeiture: criminal forfeiture, civil forfeiture, and administrative forfeiture. See Stephanie Holmes Didwania, Asset Forfeiture and Inequality, 77 STAN. L. REV. 159, 183–186 (2025). Unlike civil and administrative *in rem* forfeitures brought against “guilty property,” criminal forfeiture is an *in personam* proceeding against a defendant and requires that the defendant is first convicted of a crime. Bajakajian, 524 U.S. at 332. The Court in Bajakajian concluded that the *in personam* forfeiture (of \$357,144 that defendant possessed crossing the border in violation of a reporting statute) was punitive because it “served no remedial purpose,” was “designed to punish the offender,” and “cannot be imposed upon innocent owners.” Id. If a forfeiture is punitive, it “violates the Excessive Fines Clause if it is grossly disproportional to the gravity of a defendant’s offense.” Id. at 334.

The Third Circuit has not addressed whether criminal forfeiture of proceeds under 21 U.S.C. § 853 is punitive under Bajakajian.¹⁵ Assuming, without deciding, that the forfeiture is

¹⁵ The circuits disagree about how to determine when a forfeiture is punitive. The Fifth and Ninth Circuits have held that forfeiture of proceeds of a crime is not a punitive fine. See United States v. Betancourt, 422 F.3d 240, 250 (5th Cir. 2005) (holding that 21 U.S.C. § 853(a)

punitive, this Court nevertheless finds it is not excessive.

In assessing the proportionality of a punitive fine, courts consider four factors¹⁶:

“(1) the nature of the offense or offenses; (2) whether the defendant falls into the class of persons for whom the statute was designed—e.g., money launderers, drug dealers, or tax evaders; (3) the maximum fine authorized by statute and the sentencing guidelines which are associated with the offense or offenses; and (4) the harm caused by the defendant's conduct.”

United States v. Young, 618 F. App'x 96, 97 (3d Cir. 2015). However, underpinning this proportionality analysis is the maxim that judgments “about the appropriate punishment for an offense belong in the first instance to the legislature.” Bajakajian, 524 U.S. at 336.

“distinguishes forfeitures from fines” and “the Eighth Amendment has no application to forfeiture of property acquired with drug proceeds”); United States v. Real Prop. Located at 22 Santa Barbara Drive, 264 F.3d 860, 874–75 (9th Cir. 2001) (“Because criminal proceeds represent the paradigmatic example of ‘guilty property,’ the forfeiture of which has been traditionally regarded as non-punitive, we ... hold that the excessive fines clause ... does not apply[.]”). The Second, Fourth, and Eleventh Circuits have held that *in personam* forfeitures of proceeds are punitive. See United States v. Viloski, 814 F.3d 104, 109 (2d Cir. 2016) (applying the test because the forfeiture “was imposed at the culmination of a criminal proceeding that required a conviction of the underlying felony”); United States v. Jalaram Inc., 599 F.3d 347, 354 (4th Cir. 2010) (holding forfeiture is punitive if it “stemmed, at least in part, from the property owner’s criminal culpability.”) and United States v. Browne, 505 F.3d 1229 (11th Cir. 2007) (holding the test applies to RICO proceeds). The First Circuit appears to treat all forfeitures “imposed at the culmination of a criminal proceeding and requir[ing] conviction of an underlying felony” as punitive, but has not directly addressed a forfeiture of proceeds. United States v. Heldeman, 402 F.3d 220, 223 (1st Cir. 2005) (holding forfeiture of facilitating property was punitive) (citation omitted). The Third, Sixth, and D.C. Circuits have not analyzed the issue of whether a proceeds forfeiture is punitive under Bajakajian. But see United States v. Corrado, 227 F.3d 543, 558 (6th Cir. 2000) (holding generally that a proceeds forfeiture did not violate the Eighth Amendment without mentioning Bajakajian or applying the test).

¹⁶ In Bajakajian the Court held the forfeiture was excessive because all four of these factors were in favor of the defendant. 524 U.S. at 337–39. “First, the Court reasoned that defendant’s crime was solely a reporting offense unrelated to any other illegal activity, and the money was proceeds of legal activity to be used to pay a lawful debt. [citation]. Second, defendant ‘did not fit into the class of persons for whom the statute was principally designed: money launderers, drug traffickers, and tax evaders.’ [citation] Third, the sentence and fine established a ‘minimum level of culpability.’ [citation] Fourth, the Court concluded that the harm defendant caused was minimal, as only the government was affected by the conduct.” United States v. Tartaglione, 2018 WL 1740532, at *32 (E.D. Pa. Apr. 11, 2018), aff’d, 815 F. App'x 648 (3d Cir. 2020) (citing Bajakajian, 524 U.S. at 337–39).

As to the first factor, the nature of the offense was undisputedly serious. Mr. Huang trafficked millions of dollars' worth of opioids across the United States and took calculated measures to conceal his activity. Upon detection, he fled the country and continued to send dangerous pharmaceuticals into the country through unregulated darknet marketplaces. Further, unlike the cases in Bajakian and Young, this was not a "reporting offense" involving lawfully obtained property. See Bajakajian, 524 U.S. at 336; Young, 618 F. App'x at 97. The bitcoin were proceeds of the crime and Mr. Huang has no lawful basis to possess it. United States v. Sze, 2024 WL 195468, at *11 (D.N.J. Jan. 18, 2024) (citing United States v. Timley, 507 F.3d 1125, 1130 (8th Cir. 2007) ("proceeds that ensue from the criminal act belong to the government from the moment they come into existence")). The second factor also favors the Government because it is undisputed that Mr. Huang is a drug trafficker and falls into the class of persons the statute, which prohibits drug trafficking, was designed to regulate. See Def. Supp. Mem. at 4.

The Defense rests the bulk of its Excessive Fines Clause argument on the assertion that under the third factor a forfeiture that is significantly larger than the maximum fine under the statute must be grossly disproportionate. Def. Supp. Mem. at 5. First, "this factor was not dispositive." Young, 618 F. App'x at 98. The Bajakajian Court noted that "[r]eviewing courts ... should grant substantial deference to the broad authority that legislatures necessarily possess in determining the types and limits of punishments for crimes." Bajakajian, 524 U.S. at 336 (quoting Solem v. Helm, 463 U.S. 277, 290 (1983) (alteration in original)). Here, 21 U.S.C. § 853 provides that those convicted of certain crimes must forfeit "any property constituting, or derived from, any proceeds the person obtained, directly or indirectly, as the result of such violation." 21 U.S.C. § 853(a)(1). The fine range under the Sentencing Guidelines is \$500,000 to \$1,000,000. Def. Supp. Br. at 5, ECF 56. Therefore, Congress contemplated forfeiture of

property¹⁷ that is proceeds of the crime, *in addition to*, a potential fine of up to \$1 million. This is unlike the forfeiture in Bajakajian where the money to be forfeited “was the proceeds of legal activity and was to be used to repay a lawful debt.” 524 U.S. at 338.

Regarding the fourth factor, Mr. Huang’s conduct was harmful to society for the same reasons it is a serious offense involving extensive culpable conduct under the first factor. However, the Court takes notice that it was a non-violent offense and there is no evidence Mr. Huang was trafficking in fentanyl or selling counterfeit drugs that could cause consumers to overdose based on inaccurate labeling.

This case is starkly different from the excessive fine in Bajakajian, where the defendant “did not fit into the class of persons for whom the statute was principally designed” and the money forfeited had been *lawfully* obtained. Bajakajian, 524 U.S. at 337–39. Here, Mr. Huang was the leader of a sophisticated drug trafficking operation, transmitting tens of thousands of opioids into the United States. He committed the illegal conduct repeatedly over several years, unlike the one-off reporting violation in Bajakajian. His conduct was knowing and calculated,

¹⁷ In emphasizing the great value of Bitcoin, underpinning its excess argument, the Defense has frequently referenced how Bitcoin is increasing in value. Defendant argues that the forfeiture is disproportionate to any actual realization of money from Defendant’s drug trafficking business because the value of the bitcoins today is allegedly more than \$20 million. Hr’g Tr. 102. The Defense argues “it is inconceivable that Chinodrug ... obtained proceeds in the \$20 million-some area by shipping oxycodone.” *Id.* at 103. The Court rejects this argument. The current valuation of Bitcoin does not necessarily represent its value as a fine within the meaning of the Eighth Amendment. Bitcoin is not recognized as legal tender in this country. Virginia L. Brown, Bit by Bit: How Companies Should Proceed Before Offering Cryptocurrencies As Executive Compensation, 19 U.C. DAVIS BUS. L.J. 127, 140 (2019). There is no evidence before the Court about a direct exchange rate between Bitcoin and oxycodone. Whatever data exists on the Internet about the current value of Bitcoin is not before the Court in evidence, nor are online blog or social media discussions about trends in the value of Bitcoin. Thus, unsupported claims about the current and future value of Bitcoin compared to an estimated dollar-value of the oxycodone shipped through the Stamps.com account, amounts to comparing apples and oranges and cannot sustain any Defense argument. To the extent trends in Bitcoin valuation have been referenced in this case, it is not evidence and is more correctly characterized as “cyber chatter.”

reflected in the fact that he fled the country when he believed his activity might have been detected, but he continued to operate the business from abroad and eventually returned. Mr. Huang’s conviction carries a maximum prison sentence of twenty years and a maximum fine of \$1,000,000, unlike the Bajakajian maximum fine of \$5,000. The Court finds that Congress considers crimes and conduct like Mr. Huang’s “far more serious than the reporting offense in Bajakajian,” and that Mr. Huang “must clear a significantly higher hurdle to show that the requested forfeiture is grossly disproportional to the gravity of its offense.” United States v Jalaram Inc., 599 F.3d 347, 356 (4th Cir. 2010). The forfeiture of 199.47 bitcoin—a type of property that does not have a fixed value and was obtained as payment in a drug trafficking conspiracy—is not “grossly disproportional” to the considerable gravity of the offense.

V. CONCLUSION

For the reasons stated above, the Government’s Motion for Forfeiture of 199.47 bitcoin is **GRANTED**. An appropriate order follows.