

EXHIBIT A

Declaration of Jeremy Clark in Response to Defendants' Oppositions to Plaintiffs' Motion For Class Certification

Jeremy Clark, Ph.D., P.Eng.

1 Assignment

2 I have been engaged by Plaintiffs Ryan Huegerich, Jonathan Semerjian, Nabil Nahlah, Till
3 Freeman, Marko Ciklic, Tunisia Brignol, Milan Puda, Neil Shah, Michael Buckley, and
4 Christopher DeLuca ("Plaintiffs"), through their counsel, to provide a declaration in the case
5 captioned *In re EthereumMax Investor Litigation*, Case No. 2:22-cv-00163, pending in the
6 United States District Court for the Central District of California. Plaintiffs have retained
7 me to independently analyze and opine on the expert declaration from Professor Sabrina
8 Howell.¹ In preparing this declaration, I also reviewed the opposition to plaintiffs' motion
9 for class certification filed on behalf of defendants Kim Kardashian,² Floyd Mayweather Jr.,³

¹Expert Declaration of Professor Sabrina Howell, Ph.D., Case 2:22-cv-00163-MWF-SK, Document 253-2, Filed 04/28/25. Henceforth "Howell declaration."

²Defendant Kim Kardashian's Opposition To Plaintiffs' Motion For Class Certification, Case 2:22-cv-00163-MWF-SK, Document 253, Filed 04/28/25. Henceforth "Kardashian opposition motion."

³Defendant Floyd Mayweather Jr.'s Opposition To Plaintiffs' Motion For Class Certification, Case 2:22-cv-00163-MWF-SK, Document 250, Filed 04/25/25. Henceforth "Mayweather opposition motion."

1 Giovanni Perone,⁴ Paul Pierce,⁵ and Jona Rehnitz.⁶

2 My qualifications and other background information on my participation in this litigation are set forth in my previous declaration in support of the Plaintiffs' motion for class
3 certification.⁷ All data presented in this report was generated with Etherscan and Dune
4 Analytics.
5

6 As Professor Howell was retained by counsel for Defendant Kardashian, much of her
7 expert declaration gives consideration to the specifics of the case against Defendant Kar-
8 dashian individually. Professor Howell's expert declaration offers a set of opinions, which I
9 understand to be the following:

10 1. My profit and loss analysis is not sufficient for calculating damages.⁸

11 2. My address-based profit and loss analysis fails to account for wallet clustering, offsetting
12 trades, or users who may have exited with profits.⁹

13 3. A direct, isolated, and causal relationship is not established between price movements
14 of EMAX and social media promotions by defendant Kardashian.¹⁰

15 4. The EMAX market does not respond to 'good news' and 'bad news' like an efficient
16 market, therefore plaintiffs must prove harm purchaser-by-purchaser.¹¹

⁴Defendants Giovanni Perone And Emax Holdings, Llc's Opposition To Plaintiffs' Motion For Class Certification, Case 2:22-cv-00163-MWF-SK, Document 251, Filed 04/28/25. Henceforth "Perone opposition motion."

⁵Defendant Paul Pierce's Opposition To Plaintiffs' Motion For Class Certification, Case 2:22-cv-00163-MWF-SK, Document 252, Filed 04/28/25. Henceforth "Pierce opposition motion."

⁶Defendant Jona Rehnitz's Opposition To Plaintiffs' Motion For Class Certification, Case 2:22-cv-00163-MWF-SK, Document 256, Filed 04/28/25. Henceforth "Rehnitz opposition motion."

⁷Declaration of Jeremy Clark in Support of Motion for Class Certification, Case 2:22-cv-00163-MWF-SK, Document 243-8, Filed 02/11/25. Henceforth "Clark declaration."

⁸Howell Declaration ¶11.

⁹Howell Declaration ¶12.

¹⁰Howell Declaration ¶13.

¹¹Howell Declaration ¶14.

1 5. EMAX is a memecoin which traded in an inefficient market, therefore plaintiffs must
2 prove harm purchaser-by-purchaser.¹²

3 6. Not all plaintiffs purchased EMAX after promotions by defendant Kardashian, nor are
4 each claiming to have been exposed to said promotions, therefore plaintiffs must prove
5 harm purchaser-by-purchaser.¹³

6 **2 Number and location of EMAX purchasers**

7 As outlined in my initial declaration, the Ethereum blockchain records details about every
8 transaction that occurs on the system. Based on this, we can say that approximately 100 000
9 unique Ethereum addresses purchased the EthereumMax (EMAX) token over the relevant
10 period of 14 May 2021–27 June 2021 on the decentralized trading platform Uniswap. As I
11 also noted, unique Ethereum addresses do not necessarily correspond one-to-one with unique
12 users. Further, Ethereum does not attempt to identify or quantify individual users in its
13 blockchain data.

14 Opposition motions from counsel for defendants Kardashian, Mayweather, and Richnitz
15 contend that the ambiguity between the number of purchasing addresses and number of
16 unique purchasing users is fatal to establishing the numerosity of each proposed class. Pro-
17 fessor Howell states, “the number of individuals may be much smaller than the number of
18 Ethereum addresses.”¹⁴

19 Counsel for defendants Kardashian, Mayweather, Perone, and Richnitz further contend
20 that the lack of geographical information about the users’ residences or place of purchase
21 could mean that most or all of these users are outside the five proposed classes of Nationwide,
22 California, New York, Florida, and New Jersey. Counsel for Mayweather states, “the vague
23 statement Plaintiffs proffer could mean there are ‘tens of thousands’ of potential California

¹²Howell Declaration ¶15.

¹³Howell Declaration ¶16.

¹⁴Howell declaration, ¶12.

1 Consumer Class members, but only four New Jersey Consumer Class members.”¹⁵ Counsel
2 for Perone ponders, “what if 90% of the alleged EMAX transactions were consummated by
3 residents of foreign countries?”¹⁶ and “does the California subclass involve 10 purchases,
4 1,000 purchases, or 100,000 purchases of EMAX?”¹⁷

5 We do not have specific data about EMAX purchasers, however, that does not mean
6 the size of each proposed class cannot be estimated. We can estimate class sizes using (i)
7 clustering studies that estimate how many addresses typically belong to a user, and (ii) U.S.
8 national and state-level demographic data about cryptocurrency ownership and Ethereum
9 usage patterns.

10 Beginning with the question of how many addresses are operated by a single user, several
11 factors suggest that estimates of the number of addresses per user are likely close to one.
12 As of 2021, the most popular wallet on Ethereum was MetaMask.¹⁸ Coinbase Wallet was
13 also popular¹⁹ and was the subject of specific purchase instructions from the EthereumMax
14 project.²⁰ The wallet software for both, by default, creates a single address. Although
15 operating multiple addresses is possible, it requires the user to take deliberate steps to add
16 more than one wallet. Users may have multiple devices (*e.g.*, a computer and a phone)
17 which may result in having a wallet address on each device. However, activating, using, and
18 maintaining multiple wallet addresses is typically limited to advanced users seeking greater
19 anonymity or untraceability.

20 If the same user operates more than one address, it is difficult for users to maintain
21 perfect separation of all blockchain activities. Often the user might transfer funds from
22 one address to another, such as consolidating tokens or replenishing addresses running low

¹⁵Mayweather opposition motion, p. 9.

¹⁶Perone opposition motion, p. 13.

¹⁷Perone opposition motion, p. 13.

¹⁸“MetaMask Surpasses 10 Million [Monthly Active Users (MAUs)], Making It The World’s Leading Non-Custodial Crypto Wallet,” 31 August 2021, Online.

¹⁹8.8 million monthly transacting users for Q2 2021 from “Coinbase Usage and Trading Statistics,” backlinko, Online.

²⁰Third Amended Class Action Complaint. Case 2:22-cv-00163-MWF-SK, Document 163, Filed 06/26/23. Henceforth “Plaintiffs’ complaint.” ¶116.

1 on ETH, required to pay blockchain fees. These linking activities leave fingerprints in the
2 blockchain that suggest that multiple addresses belong to the same user. For many years,
3 computer scientists have proposed and evaluated algorithms for clustering Ethereum (and
4 other blockchain) addresses together. One project from the Distributed Computing Group
5 at ETH Zürich in 2022 applied clustering heuristics to approximately 7 million Ethereum
6 addresses and determined that the median entity operates 3 unique addresses, with a mean
7 of 4.81 [8]. Beginning with 306,316 EMAX purchases over the relevant period by 103,227
8 unique addresses, we can use the clustering results to estimate that the number of unique
9 EMAX purchasers are in the range 21461–34409 (the lower bound uses the median of 3 and
10 the upper bound uses the mean of 4.81).

11 Next we can estimate how many of these users are located in the United States. As we do
12 not have EMAX specific data, we will provide an estimate based on general cryptocurrency
13 metrics. Chainalysis finds [1] North America “accounts for 18.4% of global [cryptocurrency]
14 activity in [July 2020 – June 2021]. The United States accounts for the majority of this
15 activity.” The report ranks the United States first and assigns index 1, while Canada ranks
16 8 with index 0.52 [1]. No other NA country appears in the top 20 [1]. Statista reports in 2024
17 that Uniswap’s user base in the United States is 5 times higher than Canada [9]. ElectroIQ
18 states in 2024, “the United States accounts for 26.52% of Ethereum desktop traffic [6].”
19 Together, these data points support a proxy estimate that 15%–25% of purchasers were
20 based in the United States. Applying this to the user range 21461–34409, This yields a
21 rough estimate of the nationwide class size ranging from 3,219 to 8,602 users.

22 For the state-level classes, California leads the United States in crypto ownership circa
23 2024 according to Coinbase [3]. It reports 27% of Californians own crypto. If we consider
24 27% of California’s population in 2021 versus 15.56% [10] of the United States’ 2021 popu-
25 lation, we can estimate the size of the California class as 384–1026 purchasers, based on our
26 estimated nationwide class of 21461–34409 purchasers. Coinbase reports adoption in New
27 York at 19% and ranks it 4th highest in the country [2]. It ranks New Jersey as second in
28 the country [4] but does not report an exact number—we will estimate it as the midpoint

1 between California and New York at 23%. Florida is ranked 7 in the country [4] but again
2 no adoption rate is reported. Although it is depicted as above the country's average, we will
3 just use the US average of 16%.

4 Put together [8, 1, 9, 6, 3, 10, 2, 4] we estimate the class sizes as follows:

- 5 • Nationwide: 3219–8602
- 6 • California: 384–1026
- 7 • Florida: 209–559
- 8 • New York: 196–524
- 9 • New Jersey: 90–241

10 We emphasize these are rough estimates. They use broad cryptocurrency trends in place
11 of specific data about EMAX purchases. They ignore the fact that some EMAX user perks
12 and utilities were tied to events and venues in the United States which may result in larger
13 classes. However, they demonstrate that it would take unreasonable assumptions to conclude
14 the named plaintiffs are the only Americans, or close to it, to have purchased EMAX.

15 **3 EMAX Purchasers by IP address**

16 Counsel for Perone writes, “all EMAX purchases allegedly occurred over Uniswap—an au-
17 tonomous exchange with no centralized records of purchasers’ identities or geographic loca-
18 tion.”²¹ While this is true of Uniswap, the final destination of the user’s transaction, it is
19 not true of entities upstream from Uniswap that help route the transaction to the Ethereum
20 blockchain. To improve on our estimates provided above, the size and geographic distribution
21 of the proposed classes could be established more robustly by geolocating EMAX purchasers
22 using their Internet Protocol (IP) addresses. An IP address is a numerical label assigned by

²¹Perone opposition motion p. 6.

1 an Internet Service Provider (ISP) to a user's device, and it is essential for routing inter-
2 net traffic to and from that device. IP addresses are generally allocated to users within an
3 approximate geographic location, such as a city, and the mapping between IP address and
4 region known.

5 Ethereum transactions, such as EMAX purchases to Uniswap, will by default originate
6 from the user's device's IP address. The wallet software used by the user determines how
7 the transaction is propagated from the user to the Ethereum network. Most wallets work
8 the same way, we will describe the two common wallets mentioned above: MetaMask and
9 Coinbase Wallet. MetaMask, by default transmits the message to Infura (both MetaMask
10 and Infura are owned by ConsenSys).²² MetaMask allows users to override this setting
11 and provide a custom alternative (called an RPC) to Infura, however this is an advanced
12 option for experts. Infura logs the IP address of the user if the user posts a transaction to
13 Ethereum.²³ Coinbase Wallet, which is owned by Coinbase, uses a default RPC that is also
14 operated by Coinbase. The terms of service authorize Coinbase to collect IP addresses from
15 Coinbase Wallet.²⁴

16 4 Offsetting trades

17 Professor Howell writes,

18 Yet a single individual in the proposed class may have held multiple Ethereum
19 addresses, potentially with offsetting trading gains and losses. Individuals may
20 use multiple Ethereum addresses for a range of reasons, including privacy and
21 security. For example, Plaintiffs' own transaction data produced shows that Nabil
22 Nahlah has two wallet addresses.²⁵

23 Professor Clark's methodology, as proposed, would not be able to accurately cal-

²²ConsenSys Privacy Policy Update, 24 Nov 2022, Online.

²³Ibid.

²⁴Coinbase Wallet Privacy Policy, 16 May 2025, Online

²⁵Howell declaration, ¶ 49

1 culate profits and losses for an individual holding multiple wallets. For instance,
2 suppose that a member of the proposed class owned two Ethereum addresses
3 which they used to transact EMAX, denoted Address A and Address B. Suppose
4 that through Address A, the individual purchased EMAX early in the relevant
5 period, sold near the price peak, and made a profit of \$100. Suppose that through
6 Address B, the individual purchased EMAX later in the period and sold at a loss
7 of \$100. In aggregate, this individual incurred no loss or gain from purchasing
8 EMAX tokens during the class period, since the two wallets offset. However,
9 Plaintiffs' methodology would erroneously assign a \$100 in damages to Wallet B
10 and no damages to Wallet A, for a total of \$100 in damages to the individual.
11 Professor Clark does not propose any methodology for identifying such situations
12 and excluding those unharmed individuals from the proposed class.²⁶

13 To the extent this was not explicitly defined in my previous declaration, I assumed it
14 could be reasonably inferred. The profit/loss of each address will be added together. Thus
15 in Professor Howell's hypothetical case, the individual would have +\$100 from wallet A and
16 -\$100 from wallet B for a net total of 0. Specifically, Professor Howell is mistaken in asserting,
17 "Plaintiffs' methodology would erroneously assign... no damages to Wallet A."²⁷ In fact, the
18 methodology does not propose that at all (zeroing out profits), it tracks all profits (positive
19 numbers) and losses (negative numbers).

20 Our method can be illustrated on Plaintiff Nahlah's two wallets mentioned by Professor
21 Howell above.²⁸ The table below is truncated for space but it shows the first 10 EMAX trades
22 from address [REDACTED] as well as the last trade made during the relevant period.

²⁶Howell declaration, ¶ 50

²⁷Howell declaration, ¶ 50

²⁸Howell declaration, ¶ 49

| block_time | project | buy_type | buy_amount | sell_type | sell_amount | weth_income | weth_profit |
|-----------------------------|---------|----------|------------|-----------|----------------------|----------------------|-------------|
| 2021-05-28 11:04:32.000 UTC | uniswap | eMax | ██████████ | WETH | ██████████ | ██████████ | ██████████ |
| 2021-05-28 20:08:19.000 UTC | uniswap | WETH | ██████████ | eMax | ██████████ | ████████████████████ | ██████████ |
| 2021-05-28 20:08:19.000 UTC | uniswap | eMax | ██████████ | WETH | ██████████ | ████████████████████ | ██████████ |
| 2021-05-28 20:11:36.000 UTC | uniswap | WETH | ██████████ | eMax | ██████████ | ████████████████████ | ██████████ |
| 2021-05-28 22:35:48.000 UTC | uniswap | eMax | ██████████ | WETH | ██████████ | ██████████ | ██████████ |
| 2021-05-29 15:32:54.000 UTC | uniswap | eMax | ██████████ | WETH | █ | █ | ██████████ |
| 2021-05-29 19:16:19.000 UTC | uniswap | WETH | ██████████ | eMax | ██████████ | ██████████ | ██████████ |
| 2021-06-04 13:15:24.000 UTC | uniswap | eMax | ██████████ | WETH | ██████████ | ██████████ | ██████████ |
| 2021-06-04 16:08:31.000 UTC | uniswap | eMax | ██████ | WETH | ████████████████████ | ██████████ | ██████████ |
| 2021-06-05 22:32:59.000 UTC | uniswap | eMax | ██████████ | WETH | ██████████ | ██████████ | ██████████ |
| ... | ... | ... | █ | ... | █ | █ | █ |
| 2021-06-25 13:17:59.000 UTC | uniswap | WETH | ██████████ | eMax | ██████████ | ██████████ | ██████████ |

The table presents transactions involving both EMAX-Pilot and EMAX. Although the underlying data distinguishes between them, they are shown here together for illustrative purposes. This is why some swaps appear in pairs (*e.g.*, the second and third row) where the plaintiff is migrating EMAX-Pilot tokens to EMAX tokens.

Every time the plaintiff purchases EMAX using WETH, it is counted as a loss (negative number) in the column **weth_income**. Every time the plaintiff sells EMAX and gains WETH, it is counted as a profit (positive number) in the column **weth_income**. The running (*i.e.*, accumulated) profit and losses is in the last column denoted **weth_profit**. Thus the last row and last column of the table denotes the final profit/loss. The plaintiff made █████ WETH at this address.

The plaintiff's second address █████ is depicted next.

| block_time | project | buy_type | buy_amount | sell_type | sell_amount | weth_income | weth_profit |
|-----------------------------|---------|----------|------------|-----------|----------------------|----------------------|-------------|
| 2021-05-17 22:51:45.000 UTC | uniswap | eMax | ██████████ | WETH | █ | █ | █ |
| 2021-05-28 11:08:17.000 UTC | uniswap | eMax | ██████████ | WETH | ██████████ | ██████████ | ██████████ |
| 2021-05-28 11:27:20.000 UTC | uniswap | eMax | ██████████ | WETH | ██████████ | ██████████ | ██████████ |
| 2021-05-28 11:39:14.000 UTC | uniswap | eMax | ██████████ | WETH | █ | █ | ██████████ |
| 2021-05-28 14:12:01.000 UTC | uniswap | WETH | ██████████ | eMax | ████████████████████ | ██████████ | ██████████ |
| 2021-05-28 14:12:01.000 UTC | uniswap | eMax | ██████████ | WETH | ████████████████████ | ██████████ | ██████████ |
| 2021-05-28 14:15:40.000 UTC | uniswap | WETH | ██████████ | eMax | ██████████ | ████████████████████ | ██████████ |
| 2021-05-28 14:15:40.000 UTC | uniswap | eMax | ██████████ | WETH | ████████████████████ | ██████████ | ██████████ |
| 2021-05-28 14:17:37.000 UTC | uniswap | WETH | ██████████ | eMax | ████████████████████ | ██████████ | ██████████ |
| 2021-05-28 14:17:37.000 UTC | uniswap | eMax | ██████████ | WETH | ██████████ | ██████████ | ██████████ |
| 2021-05-28 20:10:37.000 UTC | uniswap | eMax | ██████████ | WETH | ██████████ | ██████████ | ██████████ |

At this address, the plaintiff lost █████ WETH.

Professor Howell states we cannot accurately calculate profits and losses when we have

two wallets with offsetting amounts. To the contrary, we can calculate the offset by simply adding them together: [REDACTED] - [REDACTED] - [REDACTED]. Thus plaintiff lost [REDACTED] WETH. This illustrates that offsetting wallets are not an issue for computing profits and losses.

There is a second, arguably simpler, method for offsetting profits and losses which is what our tool implements. We merge all the EMAX purchases and sales of all wallets into a single transaction log. This is illustrated below (again truncated) and note that the final profit/loss agrees (modulo a small rounding error) with what we calculated above.

| block.time | project | buy_type | buy_amount | sell_type | sell_amount | weth.income | weth.profit |
|-----------------------------|---------|----------|------------|-----------|-------------|-------------|-------------|
| 2021-05-17 22:51:45.000 UTC | uniswap | eMax | [REDACTED] | WETH | [REDACTED] | [REDACTED] | [REDACTED] |
| 2021-05-28 11:04:32.000 UTC | uniswap | eMax | [REDACTED] | WETH | [REDACTED] | [REDACTED] | [REDACTED] |
| 2021-05-28 11:08:17.000 UTC | uniswap | eMax | [REDACTED] | WETH | [REDACTED] | [REDACTED] | [REDACTED] |
| 2021-05-28 11:27:20.000 UTC | uniswap | eMax | [REDACTED] | WETH | [REDACTED] | [REDACTED] | [REDACTED] |
| 2021-05-28 11:39:14.000 UTC | uniswap | eMax | [REDACTED] | WETH | [REDACTED] | [REDACTED] | [REDACTED] |
| 2021-05-28 14:12:01.000 UTC | uniswap | WETH | [REDACTED] | eMax | [REDACTED] | [REDACTED] | [REDACTED] |
| 2021-05-28 14:12:01.000 UTC | uniswap | eMax | [REDACTED] | WETH | [REDACTED] | [REDACTED] | [REDACTED] |
| 2021-05-28 14:15:40.000 UTC | uniswap | WETH | [REDACTED] | eMax | [REDACTED] | [REDACTED] | [REDACTED] |
| 2021-05-28 14:15:40.000 UTC | uniswap | eMax | [REDACTED] | WETH | [REDACTED] | [REDACTED] | [REDACTED] |
| 2021-05-28 14:17:37.000 UTC | uniswap | WETH | [REDACTED] | eMax | [REDACTED] | [REDACTED] | [REDACTED] |
| ... | ... | ... | [REDACTED] | ... | [REDACTED] | [REDACTED] | [REDACTED] |
| 2021-06-25 13:17:37.000 UTC | uniswap | WETH | [REDACTED] | eMax | [REDACTED] | [REDACTED] | [REDACTED] |

5 Purchasers who realized profits from EMAX

Counsel for Defendant Kardashian writes, “some portion of the putative classes may have benefitted from an alleged price premium caused by Kardashian’s posts assuming Plaintiffs’ theory of liability, and thus would have suffered no ‘damage.’ Dr. Clark offers no method to identify and exclude those individuals, who would not be class members.”²⁹ Contrary to this assertion, our method does identify traders who have suffered no losses. If a purchaser breaks even or profits from EMAX purchases and sales, they will have a net profit (positive number in `weth_profit`) under our method as outlined above. I do not have a legal opinion as to whether this excludes such purchasers from the class, I merely note that our method identifies them.

²⁹Kardashian opposition motion, p. 19

1 Of the 103,227 unique addresses which purchased EMAX or EMAX-Pilot in the relevant
2 period, only 314 (0.3%) also made at least one sale of EMAX or EMAX-Pilot (either during
3 the relevant period or after, until the date of writing this report) on Uniswap or any other
4 decentralized exchange tracked by Dune Analytics’s `dex.trades` dataset. Only 133 (0.13%
5 of the original purchasers) made a profit through buying and selling.

6 If a class member sold after a promotion of EMAX artificially increased its price, they
7 may have incurred a smaller loss than they would have in a counterfactual world without
8 that promotion. However, this does not imply they necessarily suffered zero losses.

9 We clarify that the profits and losses are *unrealized*, in the sense that many EMAX
10 purchasers still hold EMAX tokens today, since they are nearly worthless and realizing the
11 loss by formally trading them would incur fees larger than the value of the tokens. This is
12 addressed in the deposition of Professor Howell who was questioned, “Is it fair to say that
13 every single person that purchased tokens during the relevant period and didn’t sell those
14 tokens... would have unrealized trading losses?” to which Prof Howell responded, “I believe
15 that is correct.”³⁰

16 6 Trading venues

17 Counsel for Defendant Mayweather writes, “Despite Plaintiffs’ proposed classes including
18 all EthereumMax token purchasers, their proposed damages model includes only those who
19 purchased via Uniswap.”³¹ As mentioned in my previous declaration, the vast majority of
20 EMAX trading took place on Uniswap. I examined the blockchain data for every EMAX
21 transfer event (including purchases on an exchange and other types of transfers) over the
22 relevant period. I determined if an Ethereum smart contract facilitated the transfer and
23 then relied on Dune Analytics (dataset `labels.contracts`) and Etherscan for attributing
24 smart contract addresses to identities. I succeeded in attributing 99.6% of transfers to a
25 specific named facilitator or to an activity other than trading (*e.g.*, a transfer of token from

³⁰Videotaped Deposition of Dr. Sabrina Howell Appearing Remotely, May 20, 2025. p. 61.

³¹Mayweather opposition motion, p. 21

one address to another).

Uniswap accounted for 77.1% of transfers. The next largest is Bulksender.app, 13.9%, which was used by the defendants to airdrop EMAX tokens. Next are manual transfers of EMAX from an owner address to a recipient address, accounting for 3.9%. The next is MetaMask Swap which is a token exchange service built into the most popular Ethereum wallet MetaMask at 3.9%. At the time of the relevant period, MetaMask did not operate an exchange directly but instead operated as a trade router to other trading platforms. Thus for EMAX transfers, there will be two transfers: one from the user to MetaMask Swap and a second from MetaMask Swap to whatever exchange it used. At this time period for EMAX, MetaMask Swap routed the trade to Uniswap and the second transfer event is already counted in the total for Uniswap.

At this point, no remaining entity on the list accounts for more than 1% of transfer events. The list does include other exchanges (*e.g.*, 0x, Sushiswap, *etc.*) and trade routers (*e.g.*, 1inch, *etc.*) but given the small number of trades, the typical member of each proposed class will have conducted their trades on Uniswap, as opposed to another exchange.

For any class members that did conduct a trade on an exchange other than Uniswap, the predominant component of their loss is the same as those who purchased on Uniswap: the EMAX tokens were acquired at a time when they were being promoted, only to lose nearly all their value, irrespective of the specific platform used for purchase. Differences in trading fees or price impacts of trades (price slippage) are a small component of the loss.

7 Privity

We have established that the vast majority of trading of EMAX took place on Uniswap during the relevant period. Uniswap does not operate like traditional trading venues for currencies or equities, where buy orders are matched to sell orders and trades are cleared and settled between the buyer and seller (or their agents). Instead, Uniswap uses a model in which entities known as liquidity providers (LPs) supply tokens to a shared pool and serve as market makers.

1 For the Uniswap market where EMAX was traded, the initial LPs deposited both EMAX
2 and wrapped Ether (WETH) in a ratio that reflected their assessment of the relative price
3 between the two. Traders then interact with this pool by depositing EMAX to receive WETH,
4 or depositing WETH to receive EMAX. Each trade alters the quantities of EMAX and WETH
5 remaining in the pool, and the implied ratio between them defines the pool's current price.

6 Plaintiffs allege in their complaint that “the buyer’s true counterparties, then, are the
7 suppliers of the liquidity” and that “wallets associated with Defendants continually provided
8 EMAX Tokens to the pool as retail investors provided Ether to purchase EMAX Tokens.”³²
9 To the extent that the liquidity pool contained (in whole or in part) tokens from the Defen-
10 dants, each purchase made through Uniswap constituted a direct purchase from a Defendant.
11 This applies both to the named Plaintiffs and to the typical absent class member, who likely
12 acquired their EMAX tokens via Uniswap.

13 8 Impact of promotions on EMAX trading

14 Professor Howell devotes the bulk of her declaration to challenging the idea that the EMAX
15 market is efficient and that its price responds to news. She argues that promotions from
16 Defendant Kardashian did not cause damages because they did not have an observable
17 impact on the price. Regardless of whether Kardashian’s promotions affected the price, the
18 plaintiffs’ theory of the EMAX market, as I understand it, is more straightforward.

19 According to the complaint, EthereumMax insiders created tokens and allocated them
20 to themselves with the intent of liquidating those tokens for WETH, a cryptocurrency that
21 continues to hold significant value (ETH is the second-largest cryptocurrency by market
22 capitalization, behind BTC). The insiders established a market for EMAX on Uniswap and
23 promoted it to attract purchasers. On Uniswap, purchases of EMAX push the price up for
24 subsequent buyers. At the same time, these purchases increase the amount of WETH that
25 can be withdrawn by traders (including insiders) selling into the pool.

26 In this setup, the success of a promotion is measured not by whether it increases the

³²Plaintiffs’ complaint, ¶34.

1 price, but by how many new purchases it induces. Whether the price actually increases is
2 instead determined by how much **EMAX** is being sold (i.e., liquidated) by insiders during the
3 same period. If the volume of insider sales exceeds the volume of new purchases, the price
4 can fall even if the promotion was effective in attracting new buyers.

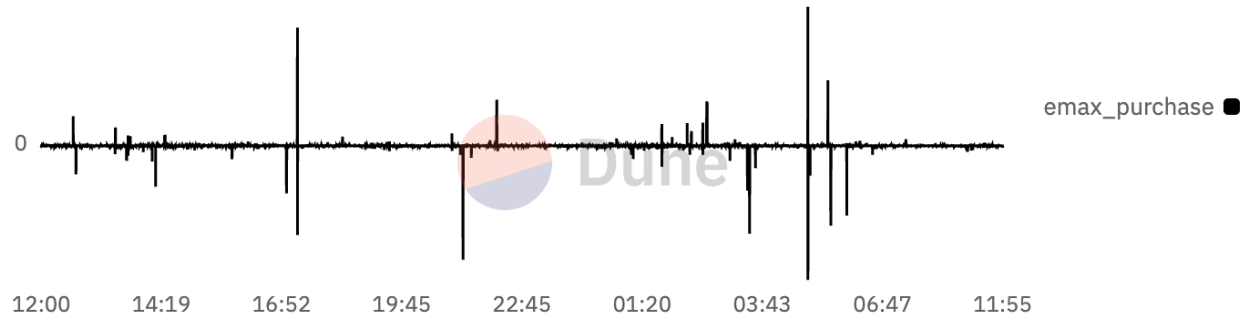
5 Note this dynamic is not sustainable over long periods of time. It is characteristic of a
6 market where insiders have concentrated control and are actively liquidating their positions.

7 The relevant question is not whether promotions increase the price, but rather whether
8 they induce new purchases. The number of purchases over any time period can be determined
9 using blockchain data.

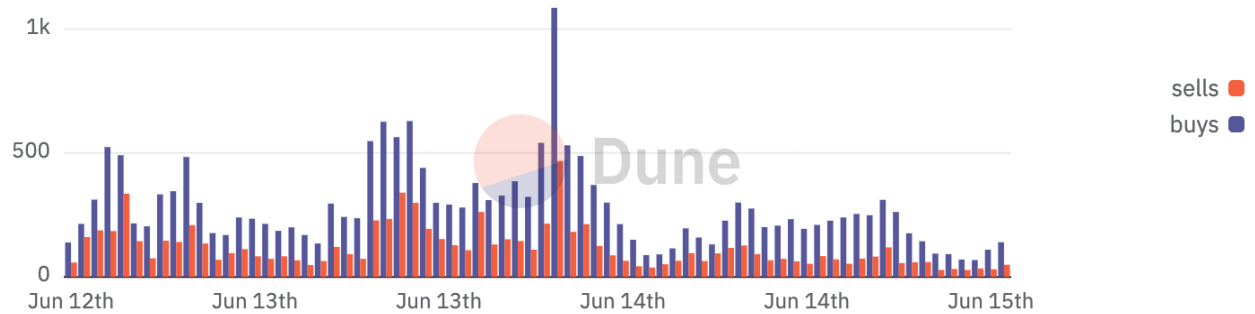
10 To illustrate, consider the Instagram post by Defendant Kardashian referenced in the
11 complaint (at ¶156), which is also analyzed by Professor Howell. In all the motions and dis-
12 closures I reviewed, I did not find a precise timestamp for the post. However, the post itself
13 includes the phrase: “A FEW MINUTES AGO ETHEREUM MAX BURNED 400 TRIL-
14 LION TOKENS...” The referenced token burn was finalized on the Ethereum blockchain
15 on 14 June 2021 at 01:08 UTC (corresponding to 13 June at 6:08 PM PDT). Assuming the
16 post occurred a few minutes later, as claimed, we can analyze blockchain transaction data
17 to evaluate whether new purchases of **EMAX** occurred around that time period.

18 Figure 1(a) shows the volume of purchases as upward bars and the volume of sales as
19 downward bars. Large purchases are generally offset by large liquidations which demonstrates
20 why price impacts will net out. Figure 1(b) shows the number of purchases in buckets of
21 1 hour for the days preceding and following the promotion. The tall blue spike in the
22 middle of the chart is the time of the promotion (1:00–2:00 UTC 14 June 2021), indicating
23 the promotion appears to induce an atypical number of new purchases. Figure 1(c) is a
24 zoomed-in view of 1(b) showing minute-by-minute purchases.

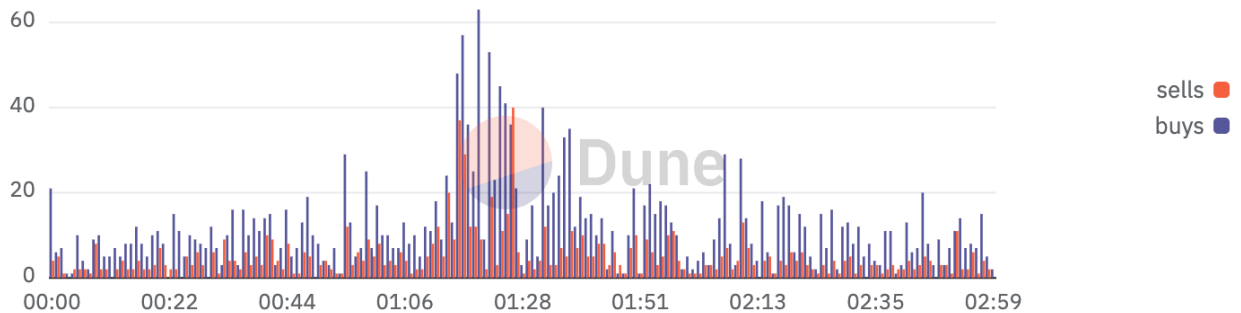
25 To the extent that new purchases followed the events of 14 June 2021, one might ask
26 whether the response was due to the token burn itself or the promotion of that burn by
27 Defendant Kardashian. In reviewing the major motions in this case, I have not seen it
28 alleged that the token burn was disclosed or promoted through any other channel. This



(a) Purchases of EMAX denoted with upward bars and sales denoted with downward bars.



(b) Number of purchases (invariant to the amount of purchase) per hour for 12–15 June 2021. Tall blue spike at 1:00–2:00 UTC.



(c) Number of purchases (invariant to the amount of purchase) per minute on 14 June 2021 UTC. Zoomed in view of the tall spike in previous figure.

Figure 1: Overview of EMAX transfers around 1:04 UTC on 14 June 2021.

- 1 lends support to the inference that most traders learned of the burn through Kardashian's
- 2 post.
- 3 It is, of course, possible that some traders discovered the burn independently by moni-

1 toring the blockchain, either manually or through automated tools. However, such traders
2 would be considered highly sophisticated. Moreover, advanced traders are likely to recognize
3 that the burn was 0.2% of the total EMAX supply.

4 9 Wash trading

5 Professor Howell discusses the purchases of EMAX and writes, “there is widespread bot trad-
6 ing and wash trading in these markets, which can involve using many addresses to accomplish
7 a single individual’s or institution’s trading strategy.”³³ For this assertion, she cites the aca-
8 demic paper “Crypto Wash-Trading” by Cong *et al.* [5]. However, that paper studies wash
9 trading on centralized exchanges. The authors note, “We collect cryptocurrency transaction
10 information on 29 major exchanges... The coverage includes well-known exchanges such as
11 Binance, Coinbase, and Huobi, as well as many obscure ones” [5]. These results are not ap-
12 plicable to EMAX or EMAX-Pilot, which were traded exclusively on decentralized exchanges
13 like Uniswap.

14 As Professor Howell herself concedes, “lists of sustainable or successful meme coins are
15 generally drawn from centralized exchanges such as Coinbase and Binance. Since listing on
16 a centralized exchange is crucial for meaningful liquidity and success in crypto markets, it is
17 notable that EMAX was never traded on a centralized exchange.”³⁴ Therefore, the prevalence
18 of wash trading on EMAX purchases through Uniswap should be considered separately.

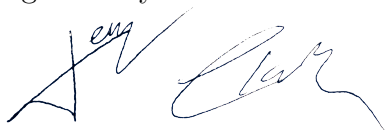
19 To that end, wash trading on automated market maker (AMM) exchanges such as
20 Uniswap can be studied using the methodology of Gan *et al.*, in their paper “Exposing
21 Stealthy Wash Trading on Automated Market Maker Exchanges” [7].

³³Howell declaration, ¶46.

³⁴Howell declaration, ¶32.

10 Declaration

The opinions expressed in this report are based on my review and analysis of the documents I cite. I reserve the right to supplement my report and analysis based on any new evidence brought to my attention.



May 27, 2025

Montreal, QC, Canada

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