Dissecting USDT Flows On Tron

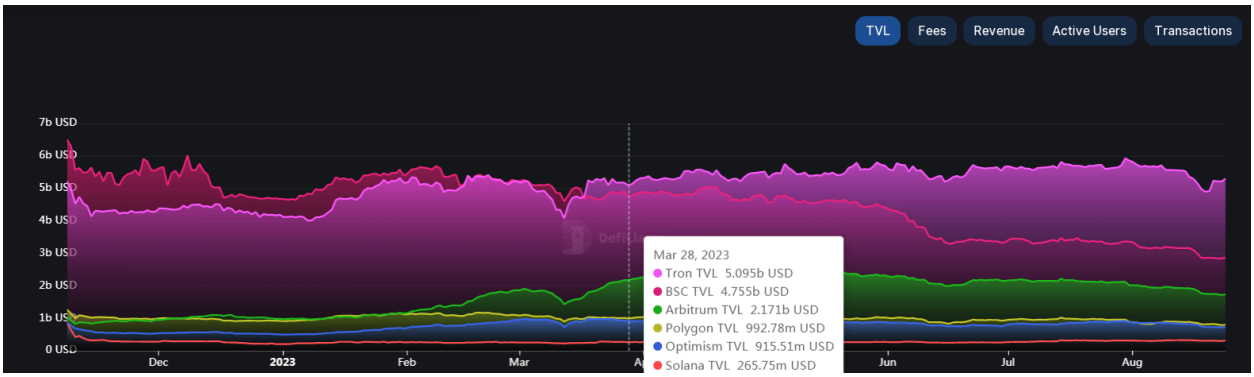
Introduction

Tron was initially launched on Ethereum, but transitioned to its own standalone chain on July 25, 2018. Despite flying under the radar, Tron has managed to attract the second-highest total value locked (TVL) on its chain, following Ethereum. In fact, it has even surpassed the circulating supply of USDT on Ethereum. Given the relatively small DeFi sector on Tron, questions arise regarding the utility of USDT on this chain.

This report analyzes the flows of USDT on the Tron network to address this particular query. It first discusses the rise of Tron and the significance of USDT on the network. The report then delves into the major contributors to USDT transfers on Tron, breaking down the transactions by volume and type to reveal further interesting details. Additionally, the report analyzes the use of USDT in the DeFi segment and for yield-bearing tokens such as staked USDT (stUSDT).

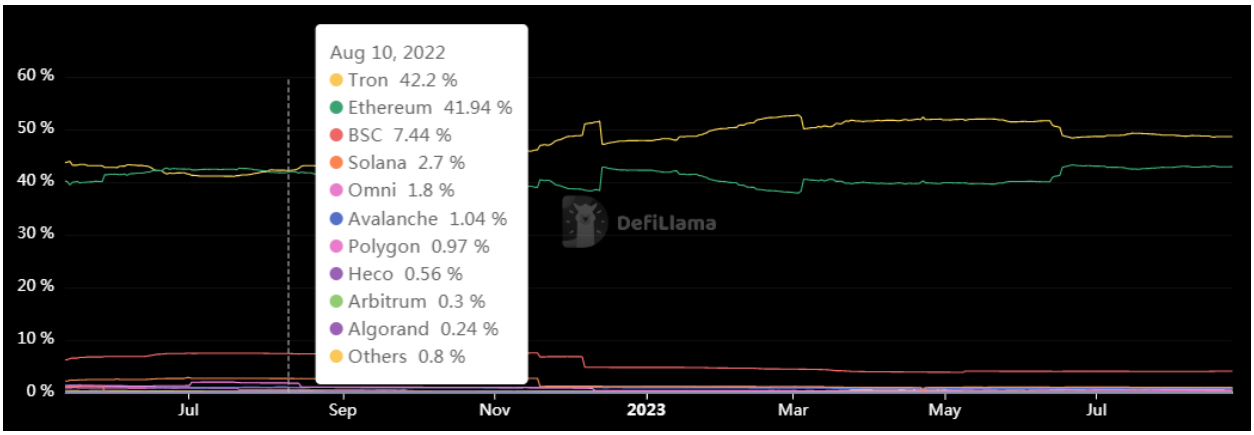
The Rise Of Tron Network

Tron has the second largest TVL after Ethereum standing at $5.2b. The network managed to surpass the TVL of Binance Smart Chain in March 2023, increasing its importance in the blockchain ecosystem.



Source: DefiLlama

Tron network holds 48.6% of the total circulating supply of USDT. It had trumped the supply on Ethereum in August 2022 and has since been the blockchain having the largest supply of Tether. Tether holds a market capitalization of $82.9b, cementing the significance of Tron. This also raises the question of the utility of USDT on the Tron network and the reason for the issuance of the stablecoin on the blockchain.



Source: DefiLlama

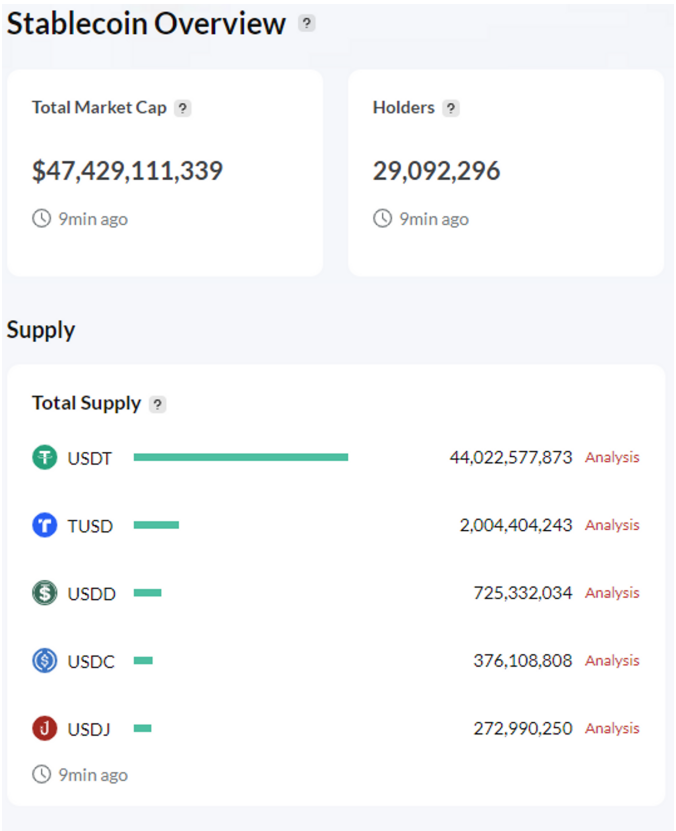
With the second largest TVL among all the blockchains and with a significant supply of stablecoin on-chain, Tron has become one of the active chains to analyze as competitors like Solana and Binance Smart Chain continue to bleed TVL and activity on their chains.

Influence of USDT on the Tron Network

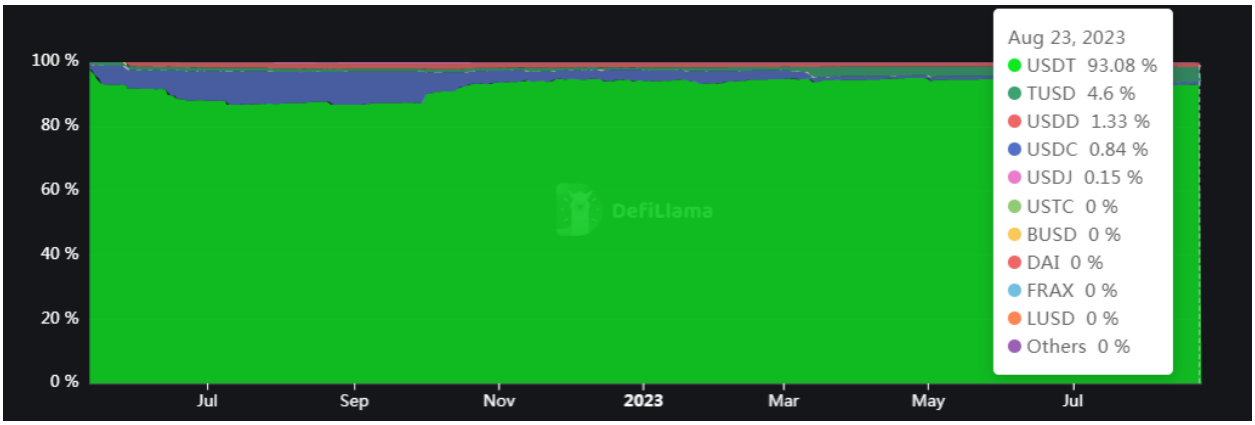
While we have established the importance of Tron as a blockchain, we need to assess the influence USDT has on the network.

- **USDT Dominates Stablecoins on Tron**

Currently, there are $47 billion worth of stablecoins on the TRON network. USDT dominates 92.9% of the market, amounting to 44b tokens supplied. TUSD Specifically, the native stablecoin of TRON, USDD, accounts for around 1.5% of the total stablecoin value.



Source: Tronscan

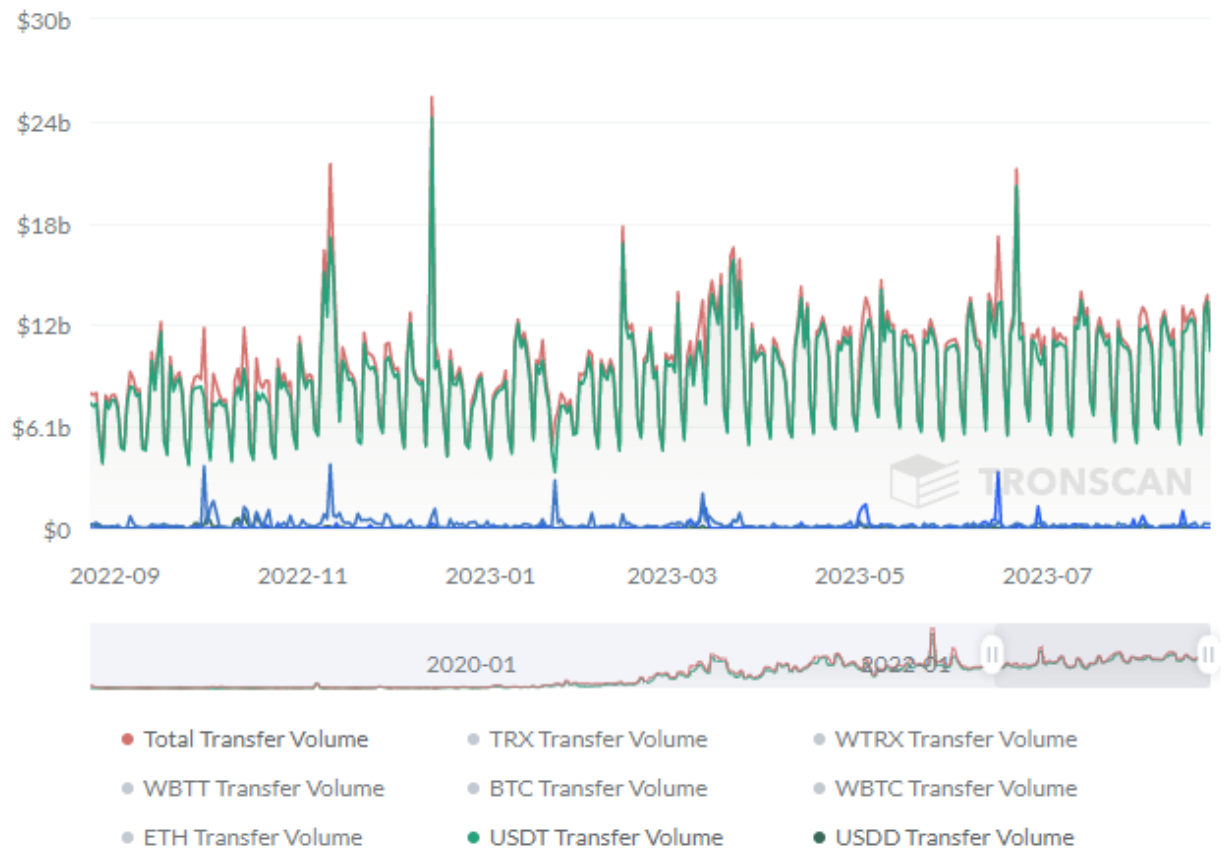


Source: DefiLlama

- **USDT Accounts For The Lion Share Of Transfer Volume**

USDT transfer flows not only dominates the stablecoin transfers but also the total transfer volume on the Tron network. USDT on average, accounts for 96% of the total

stablecoin transfer flow. Meanwhile, with an average daily volume of $11.3b, it contributes 92.4% of the total transfer volume on the blockchain which stands at $12.2b.



- **Smart Contracts Calls**

The table below presents the top ten smart contracts that have received the most calls within the previous week. Specifically, the smart contract of USDT stands out as it has surpassed 2.19 million calls, accounting for a significant 97.21% of all contract calls. This data strongly indicates that the primary commercial activity conducted on the TRON network revolves around the transfer of USDT.

Top Contracts--Calling Accounts

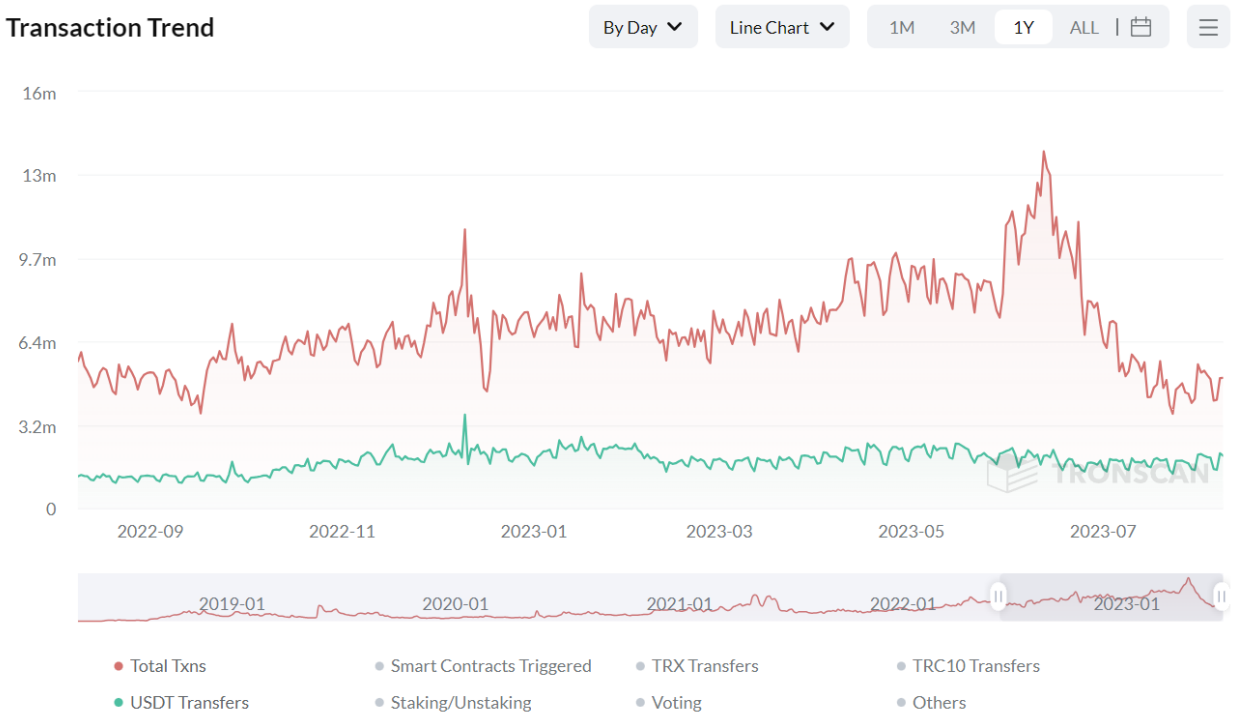
Rank	Contracts	Contract Name	Calling Accounts	Percentage
1	SC USDT Tok...	TetherToken	2,191,200	97.21 %
2	SC TEA... uKxE8	Airdrop	13,106	0.58 %
3	SC TZ7...mn7Lq	StakingDCT	10,101	0.45 %
4	SC USDC Tok...	FiatTokenProxy	9,801	0.43 %
5	SC DCT Token	DegreeCryptoTok...	8,444	0.37 %
6	SC S-USDT-T...	CreatedByContract	6,470	0.29 %
7	SC TMT Token	TheMajorityToken	4,062	0.18 %
8	SC JustLend ...	MarketProxy	1,979	0.09 %
9	SC BTT Token	BTT	1,909	0.08 %
10	SC D9 Token	Token	1,730	0.08 %
Total	--	--	2,248,802	99.77 %

Source: TRONSCAN

- USDT Transfers Remain Resilient

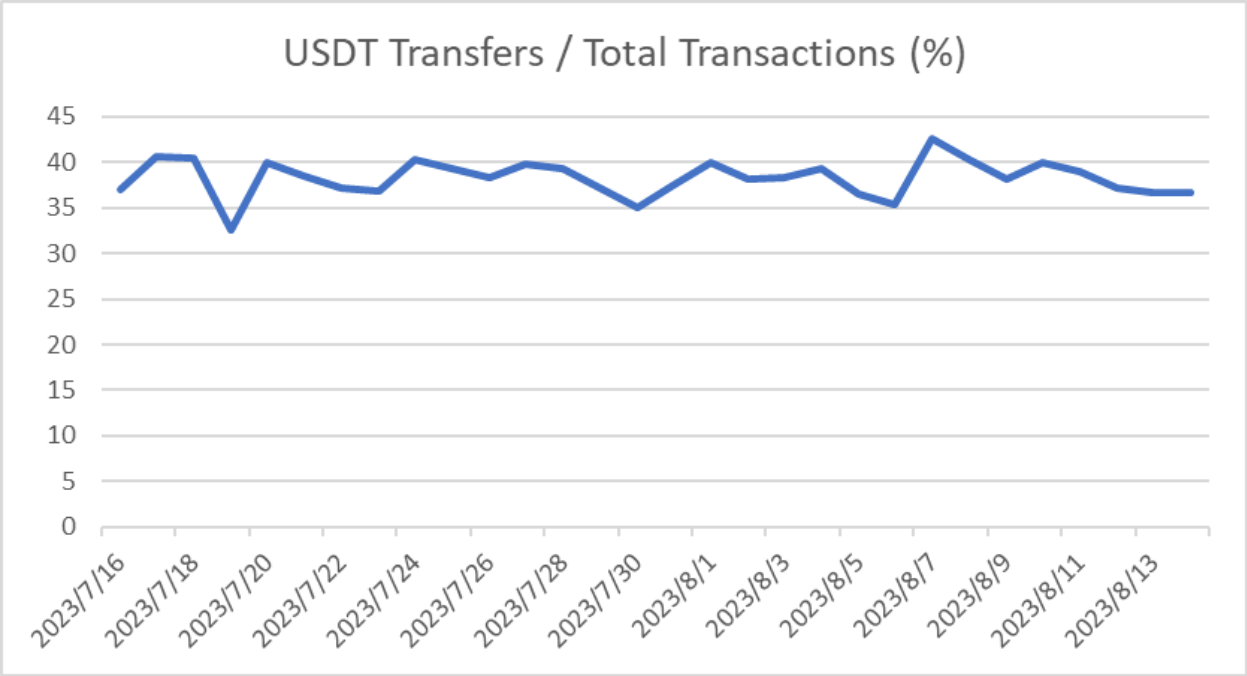
TRON network has witnessed average daily transactions of 7.3m over the past 6 months. However, there has been significant volatility with the transaction reaching a high of ~14m in June to lows of ~4.1m in August.

Despite the overall decrease in transactions, the transfer of USDT has remained stable and resilient throughout the whole time. This indicates that the network has a consistent level of USDT transfer activity which is unaffected by the demand for other tokens or protocols on the blockchain.



Source: TRONSCAN

USDT transfers made up around 35-45% of all transactions on the TRON network. It's worth noting that the total transactions on Tron encompass a variety of actions, such as delegation of resources and staking TRX, which are integral to how the Tron mechanism operates. When it comes to transactions that are outside the core mechanics of Tron, USDT transfers play a distinctly important role.

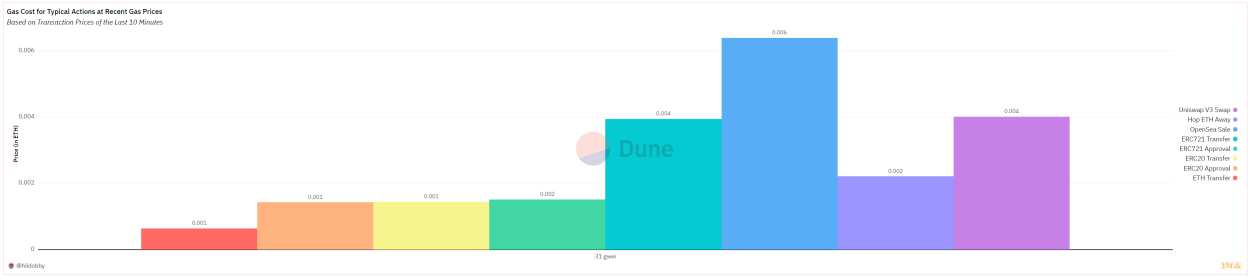


The large supply and resilient transfer volume on the Tron network strongly indicate that USDT dictates the major share of the activity on the blockchain.

Why Did USDT Transfers Find A Product Market Fit On Tron?

The major reason for the surge of stablecoin activity on Tron and its shift from Ethereum can be attributed to Tron's higher throughput and lower fees.

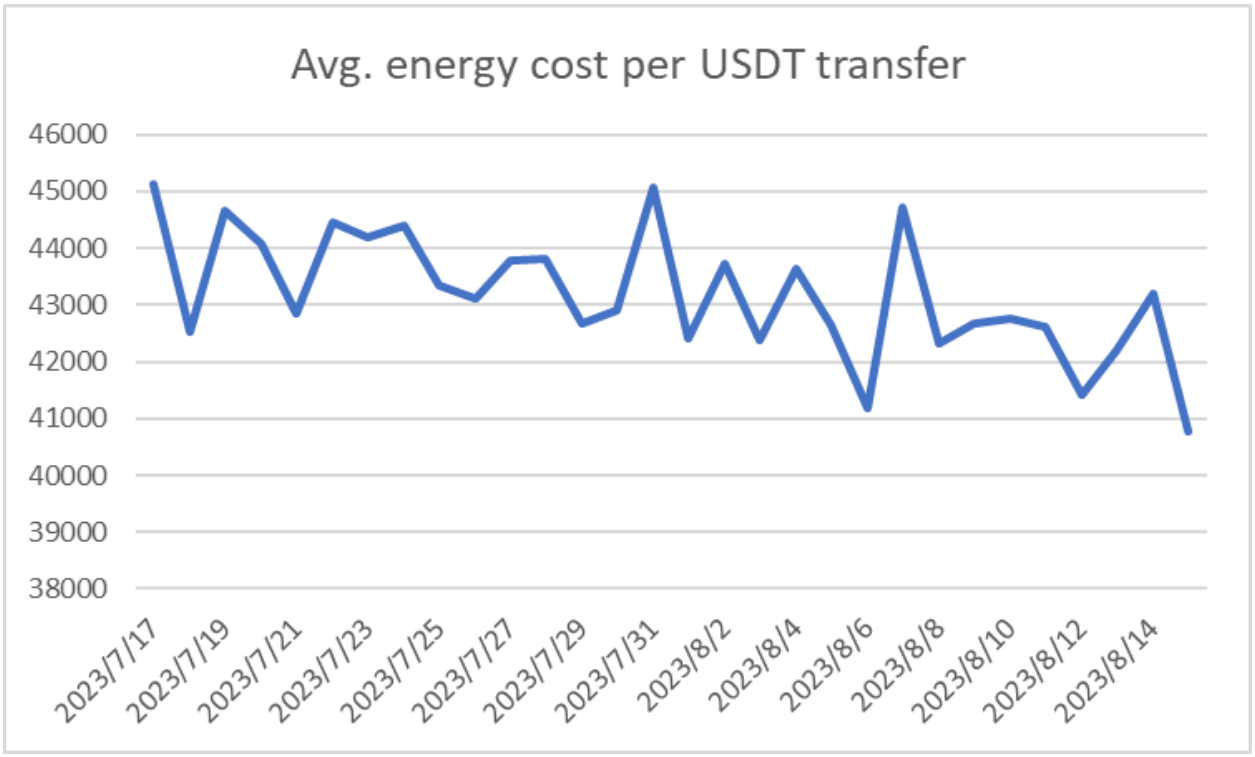
In terms of transaction speed, the TRON network can handle approximately 2000 transactions per second (TPS), whereas Ethereum can handle around 25 TPS. This means that TRON experiences less congestion compared to Ethereum, resulting in a more stable consumption of gas (energy) on TRON. Conversely, gas consumption on Ethereum can be highly volatile due to gas wars.



Source: Dune

Typically, ERC20 transfer will cost 0.001 ETH ($1.8 when ETH rate at $1800) at a gas price of 31 GWei but this can vary significantly depending on the gas price of the day.

Taking a closer look at the average energy cost for transferring USDT on TRON over the past 30 days, it has been observed to be around 43190 energy units, which equates to a fee of approximately $0.5. Additionally, on TRON, individuals can earn energy by staking TRX tokens, further reducing the actual fees incurred.



The lower fees and higher throughput on Tron can be attributed to Delegated Proof-of-Stake (DPoS), its consensus mechanism. This process involves a group of validators known as Super Representatives (SRs) who are chosen from a larger pool of SR candidates. Any TRX (Tron's token) token holder can stake to apply to become an SR candidate and can also vote for SR candidates. The top 27 candidates with the highest number of votes become the SRs for the next six-hour period, known as an epoch, while the candidates ranked 28th to 127th become SR Partners.

The responsibility of SRs is to create new blocks and bundle transactions together. To ensure the smooth operation of the Tron network and encourage participation, an incentive model is employed. SRs who successfully complete their block creation tasks are rewarded with TRX tokens.

The restricted validator set allows the network to communicate and confirm blocks quickly and cheaply. Meanwhile, Ethereum’s ~746K validators require greater time and resources to manage and maintain the peer-to-peer network, thereby increasing the cost of transactions and reducing the throughput.

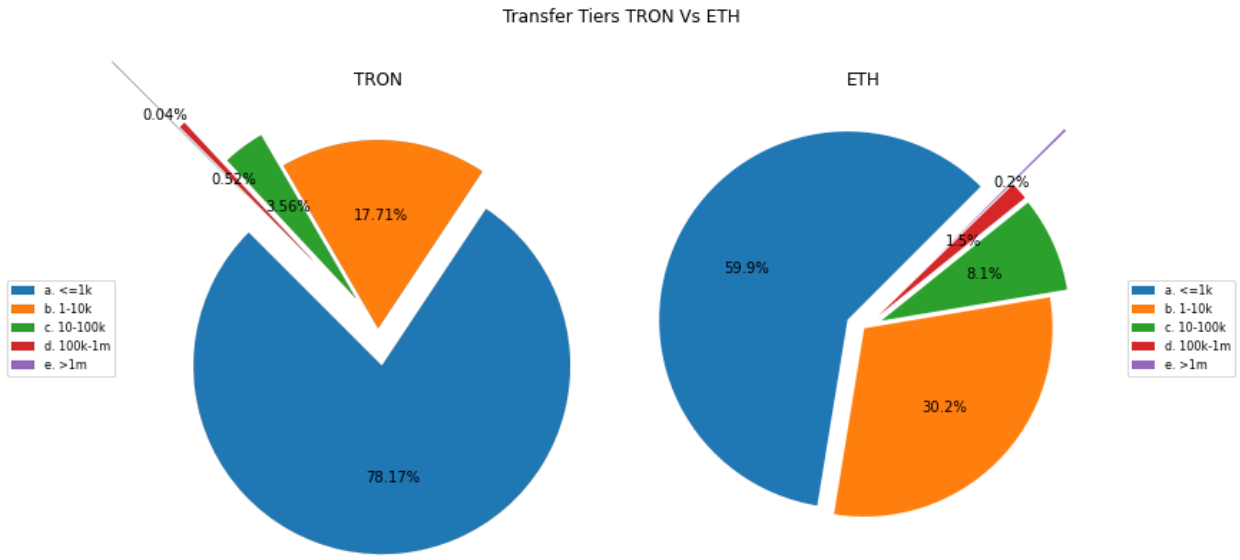
This has catapulted Tron as the favoured destination for transferring USDT tokens.

Entities Utilizing Tron For USDT Transfers

- **Retail Flow Dominates**

We have analyzed the movement of USDT on the TRON and Ethereum networks. Our findings show that on Tron, around 78% of USDT transfers are for amounts below $1,000, whereas on Ethereum, this stands at only 60%. Additionally, transfers below $10,000 make up 96% of all USDT transfers on Tron. This indicates that many retailers are using TRON as a payment platform, likely because of the low transaction fees.

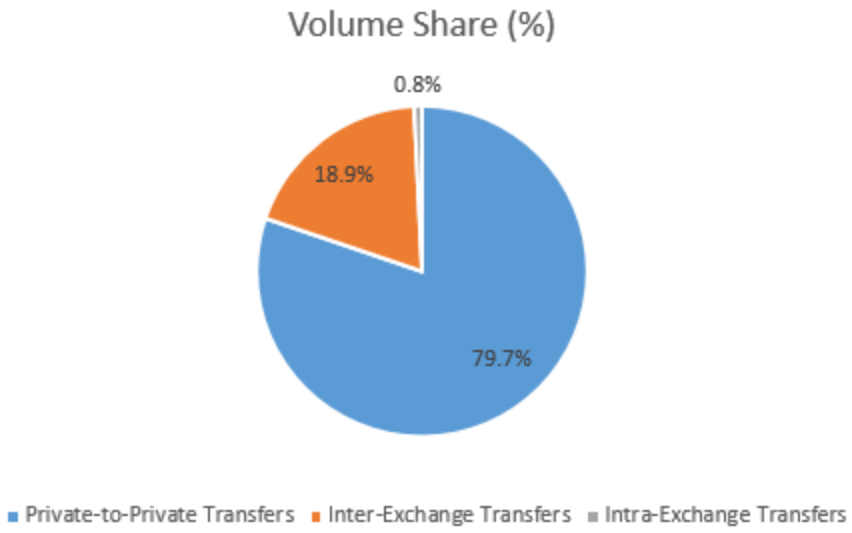
The low fees on Tron attract retail users, allowing them to viably move their funds. On the contrary, Ethereum’s higher transaction fees cause people to be more restrictive with their transfers. They need to ensure that the benefits of the transaction outweigh the expensive gas fees. This is why the average transfer amount of USDT is higher on Ethereum compared to TRON.



Source: Allium

- **Private Transactions**

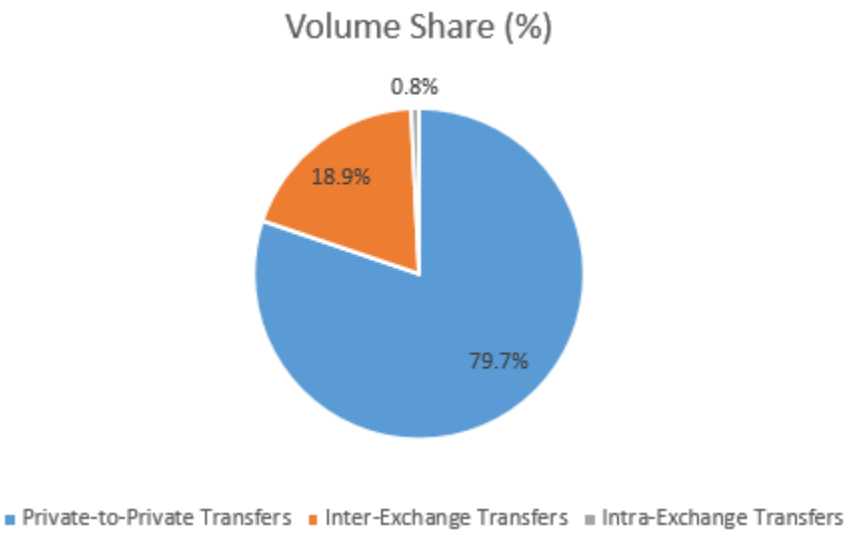
The transfer flows were analyzed to break down the type of transfers being made. Over 79.7% of the total volume of transactions in the past 7 days flowed between private wallets. These exclude transfers made from and to wallets held by centralized exchanges. The data establishes a healthy flow of USDT between private wallets.



Source: Tronscan

- **Inter-Exchange Transfers**

Another important use of USDT transfers can be attributed to inter-exchange transfers. With the low transaction fees, users use Tron to shift their funds from one centralized exchange to another. This allows traders to trade on multiple exchanges and on varied token pairs. Around 18.9% of the transfers in the past 7 days might have been a result of inter-exchange transfers.

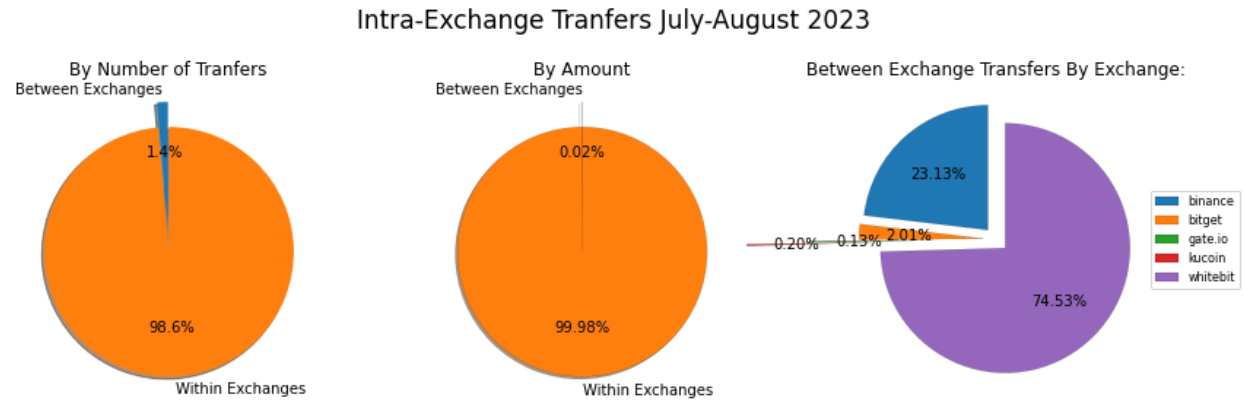


Source: Tronscan

- **Intra-exchange Analysis**

We wanted to analyze if centralized exchanges transfer USDT amongst their wallets to inflate the transfer volume on the Tron network. Over the past 7 days, only 0.8% of the total transfer volume could be attributed to intra-exchange transfers.

This behavior is observed mostly on WhiteBit and Binance, accounting for 74.53% and 23.13% respectively. Only a small portion(1.4% by transaction number, 0.02% by volume) of intra-exchange transfers involve moving funds between different exchanges.



Source: Allium

Is There Wash Trading On The Network?

Since we have established the importance of private and retail transfer flows on Tron, we want to analyze whether there is wash trading occurring on the TRON network in order to artificially inflate transaction volumes. Wash trading, in this case, refers to the repeated transfer of funds between ***two*** addresses within a month. We have excluded addresses categorized as 'DEX' since it is common for users to transfer USDT back and forth with DEX, such as buying a token with USDT and later selling it for USDT.

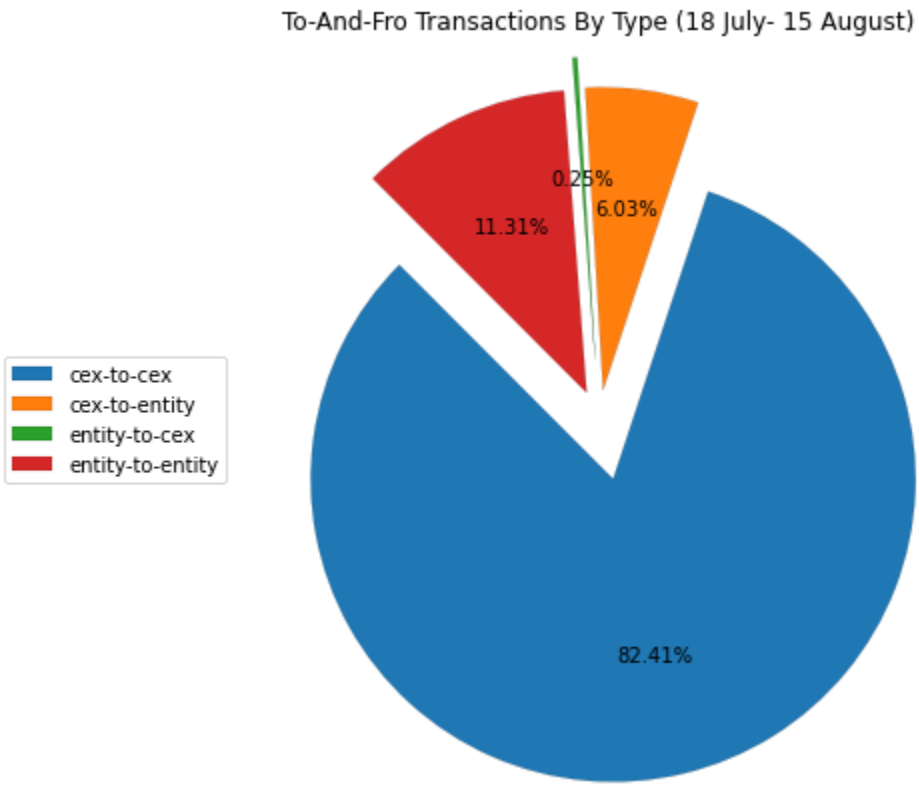
The findings of our analysis are quite interesting. All transactions or pairs of addresses involved in this scenario have been flagged, indicating that they are either exchanges or entities connected to stablecoins, such as Tether Treasury.

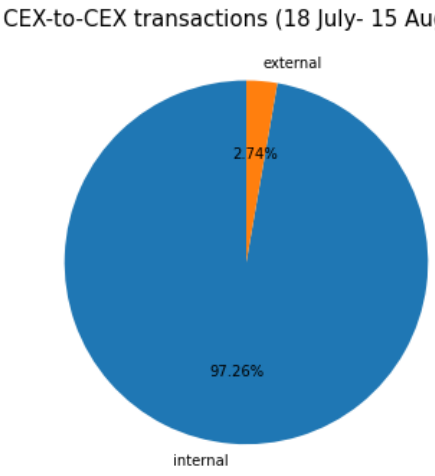
A total of only 398 transaction pairs were flagged over the period of a month, which indicated that there is very little wash trading occurring. Furthermore, a full 82.4% of these transactions were between exchanges, of which 97.3% (see below) were internal transactions between wallets of the same exchange. These transactions are not wash trading but merely internal fund management, with most of these transactions occurring between Binance wallets (97.6%).

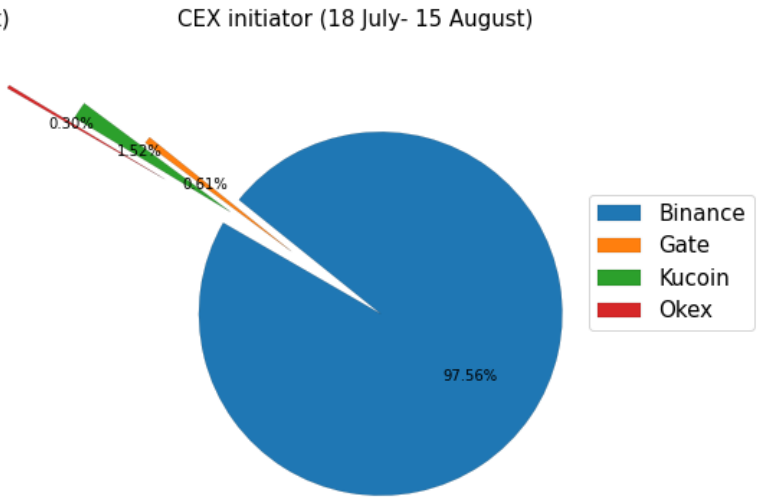
This suggests that wash trading between two wallets is not taking place on the network.

Note: Wash trading can occur between more than 2 wallets with 3 distinct wallets rotating funds amongst each other. This has not been taken into consideration for the

current calculations.







Source: Allium

USDT Whale Holders Analysis

We have analyzed the retail flows on the network, establishing that a significant volume of private-to-private transactions is taking place. In this section, we assess the whales or the top wallets holding USDT.

- **USDT holders on TRON**

There are 27.8 million users holding USDT on TRON. The majority of the top USDT holders on the Tron network are hot and cold wallets associated with centralized exchanges like Binance, Kraken, Kucoin, and others. The top 10 wallets account for approximately 37.12% (equivalent to $15.5b) of the total USDT, with five of those wallets being attributed to Binance.

Holder Account

A total of 27,860,356 token holder accounts. Only the first 10,000 data are displayed

Search Address

#	Address	Amount	Value	Percentage	Latest Txn Time (UTC)	Action
1	TWd4WrZ9wn84f5x1hZhL4DHvk738ns5jwb Binance-Cold 2	7,185,529,399.020000	$7,177,190,669.91	16.322373%	2023-08-08 08:39:45	Holdings Analysis
2	TMuA6YqfCeX8EhbfYEg5y7S4DqzSJireY9 Binance-Cold 1	3,999,333,220.555150	$3,994,692,037.63	9.084732%	2023-01-17 02:19:42	Holdings Analysis
3	TT1DyeqXaaJkt6UhVYFWUXBXknaXnBudTK Binance-Cold	2,164,997,579.001000	$2,162,485,122.74	4.917925%	2023-05-08 23:01:33	Holdings Analysis
4	TKHuVq1oKVruCGLvqVexFs6dawKv6fQgFs Tether Treasury	1,196,586,321.806213	$1,195,197,696.33	2.71812%	2023-08-11 21:46:18	Holdings Analysis
5	TV6MuMXfmLbBqPZvBHdwFsDnQeVfnmiuSi Binance-Hot	603,119,880.910708	$602,419,966.82	1.370024%	2023-08-14 08:25:06	Holdings Analysis
6	TTd9qHyjqiUkfTxe3gotbuTMpjU8LEbpkN Kraken	354,790,229.135128	$354,378,498.91	0.805928%	2023-08-14 08:25:06	Holdings Analysis
7	TRJvQFUWwSmnk5rgM8m4HgE6Csj2qPEupX	216,444,609.069109	$216,193,427.44	0.491667%	2023-06-22 10:41:12	Holdings Analysis
8	TNiq9AXBp9EjUqhDhrwrfvAA8U3GUQZH81	212,922,388.132921	$212,675,294.01	0.483666%	2023-06-22 10:09:12	Holdings Analysis
9	TDToUxX8sH4z6moQpK3ZLAN24eupu2ivA4	200,000,935.759000	$199,768,836.84	0.454314%	2023-08-08 03:11:51	Holdings Analysis
10	TJCo98saj6WND61g1uuKwJ9GMWMT9WkJFo Binance	200,000,000.000000	$199,767,902.16	0.454312%	2023-08-07 12:24:51	Holdings Analysis
11	TQrY8tryqsYVCYS3MFbtffiPp2ccyn4STm Binance	150,581,617.755066	$150,406,869.42	0.342055%	2023-08-14 08:25:06	Holdings Analysis
12	TNXoiAJ3dct8Fjg4M9fkLFh9S2v9TXc32G Binance-Hot	149,691,547.730349	$149,517,832.31	0.340034%	2023-08-14 08:25:06	Holdings Analysis
13	TB1WQmj63bHV9Qmuhp39WABzutphMAetSc	148,875,370.737604	$148,702,602.48	0.33818%	2023-08-09 05:25:24	Holdings Analysis
14	TAzsQ9Gx8eqFNFSKbeXrbi45CuVPHzA8wr Binance-Hot	148,429,611.339310	$148,257,360.38	0.337167%	2023-08-14 08:25:06	Holdings Analysis
15	TJDENsfBJs4RFETt1X1W8wMDc8M5XnJhCe Binance-Hot	143,228,728.109823	$143,062,512.72	0.325353%	2023-08-14 08:25:06	Holdings Analysis
16	TYASr5UV6HEcXatwdFQfmLVUqQQQMUxHLS Binance-Hot	134,126,968.617072	$133,971,315.72	0.304678%	2023-08-14 08:25:06	Holdings Analysis
17	TQLz9rCrgnk8K2FcAsT8B7Q6vKJh48xCzZ	131,683,298.515278	$131,530,481.47	0.299127%	2023-08-11 06:20:12	Holdings Analysis
18	TTiDLWE6fZK8okMJv6ijg42yrH6W2pjSr9	131,288,564.114560	$131,136,205.16	0.29823%	2023-07-28 19:04:15	Holdings Analysis
19	SC TXJgMdjVX5dKiQaUi9QobwNxtSQ... qccvd	128,905,190.258463	$128,755,597.18	0.292816%	2023-08-14 08:20:06	--
20	TRYL7PKCG4b4xRCM554Q5J6o8f1UjUmfnY Kucoin-Cold	124,041,293.332849	$123,897,344.75	0.281767%	2023-08-12 15:58:39	Holdings Analysis

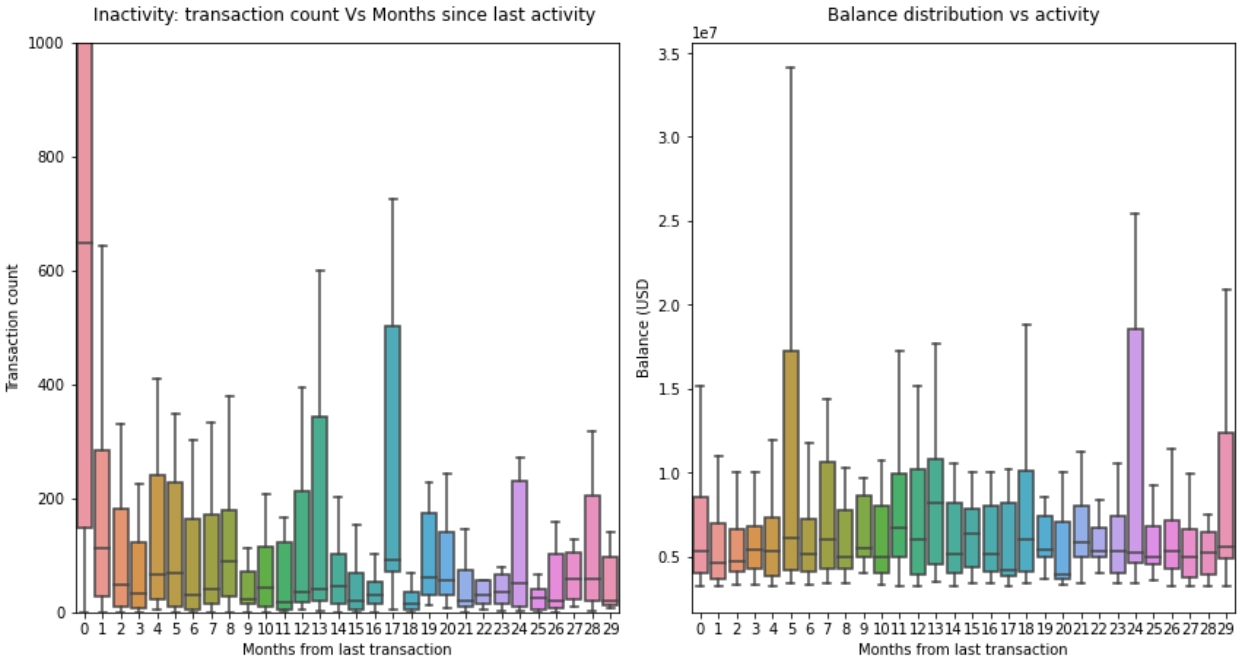
Source: TRONSCAN

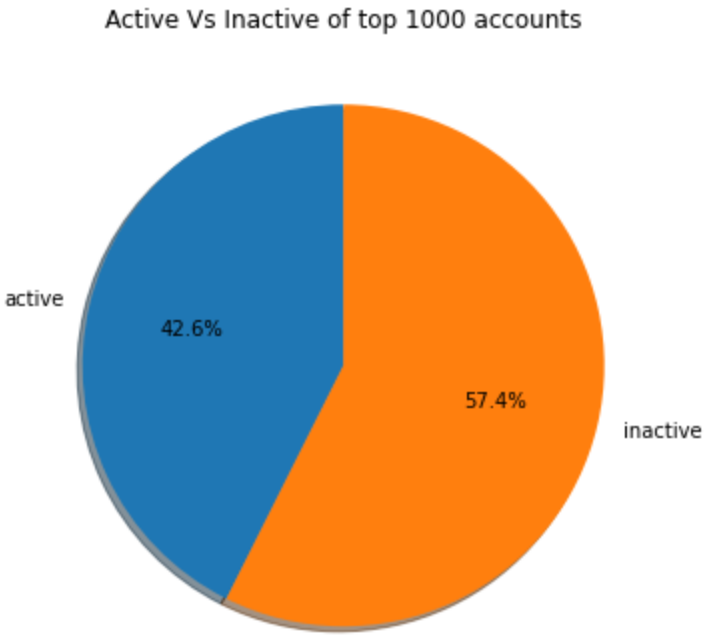
- **Active And Inactive Private Users Of USDT**

The majority of the top 1000 largest accounts holding USDT are not actively engaging in trading but rather seem to be holding it statically. The plot below shows that there seems to be a negative correlation between transaction count and the number of months since the most recent transaction. Accounts that were active in the last month had a median of around 660 transactions in total, which tails off drastically to around 50 when the last activity was 3 months ago. This implies that inactive accounts are those which have not been active in the last 3 months. Based on this definition the pie chart below shows that a full 57.4% of the top 1000 accounts are inactive. There does not

seem to be any correlation between balance and months since the last transactions, so having a larger balance doesn't necessarily make inactivity more likely.

This would imply that a large percentage of privately held USDT tokens are being held statically as wealth and not for active trading purposes. With interest rates rising in the US, idle USDT on Tron is losing out on 5.5% interest annually. Tron has historically positioned itself with its Asia-focused marketing which might indicate that significant wallet holders are non-US citizens.



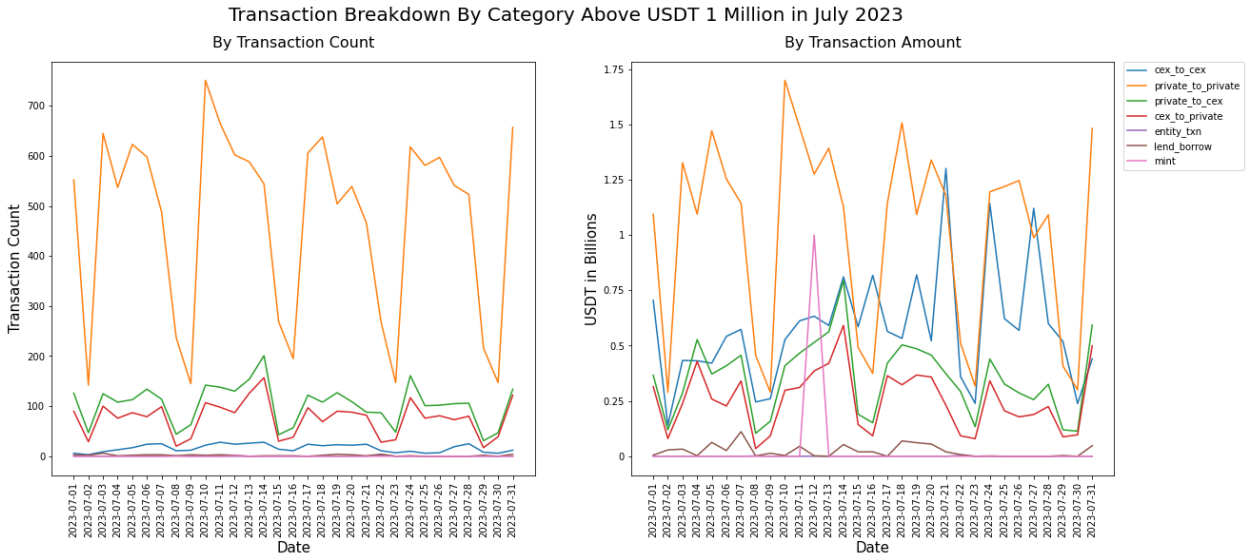


Source: Allium

- **Whale Transaction Breakdown By Category**

We collected data for all the transactions in July that were above 1m USDT - in order to understand what whales are doing with USDT on TRON.

Private-to-private transactions dominate, both in the count and overall daily volume, which would indicate that USDT is mostly used as a form of payment. Exchange-to-exchange transactions are few but are of large amounts, surpassing P2P payments to a total of 1.25b on the 20th of July and following it closely for the rest of the month. However, up to this point in the month, P2P transfers were much higher. As discussed above, these transactions are potentially to internally manage funds of the same CEX. Private-to-exchange daily transfers surpass exchange-to-private flow which suggests a net outflow of USDT from larger holders on the network. Lending activity of USDT on TRON does not appear to be significant, with all daily transactions below 100m USDT. The only minting event occurred on 12th June, where 1b USDT was minted by Tether.



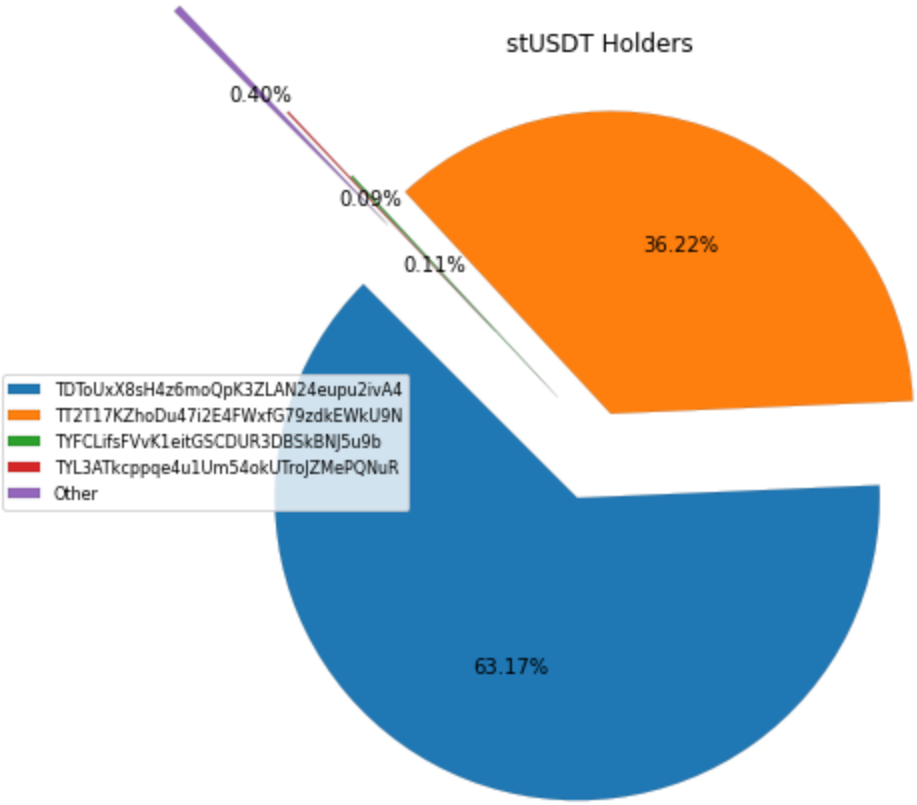
Source: Allium

How Is USDT Being Used On Tron Apart From Transfers?

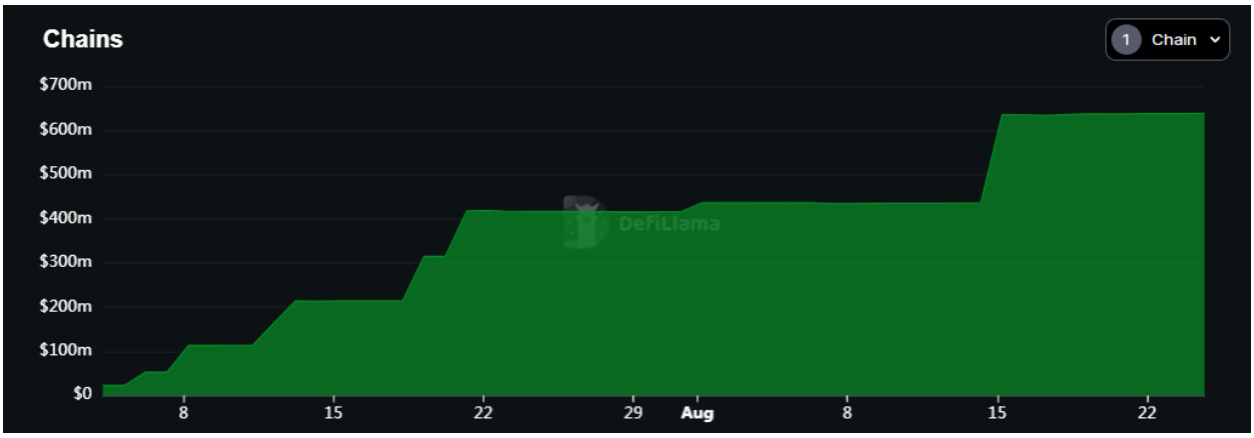
- **The Curious Case Of stUSDT**

Launched by Justin Sun on the 30th June, stUSDT is a staked version of USDT which claims to invest in real-world assets (RWAs) and offers an APY for USDT holders on both Ethereum and Tron networks.

However, no details of the RWA have been released by the DAO that controls this. Additionally, of the 635M stUSDT tokens minted, the vast majority is being held in two unlabeled accounts (99.39%), one apparently belonging to Huobi and the other to Justin Sun, even though there are around 100k accounts holding it. This makes the holding of stUSDT fully centralized.



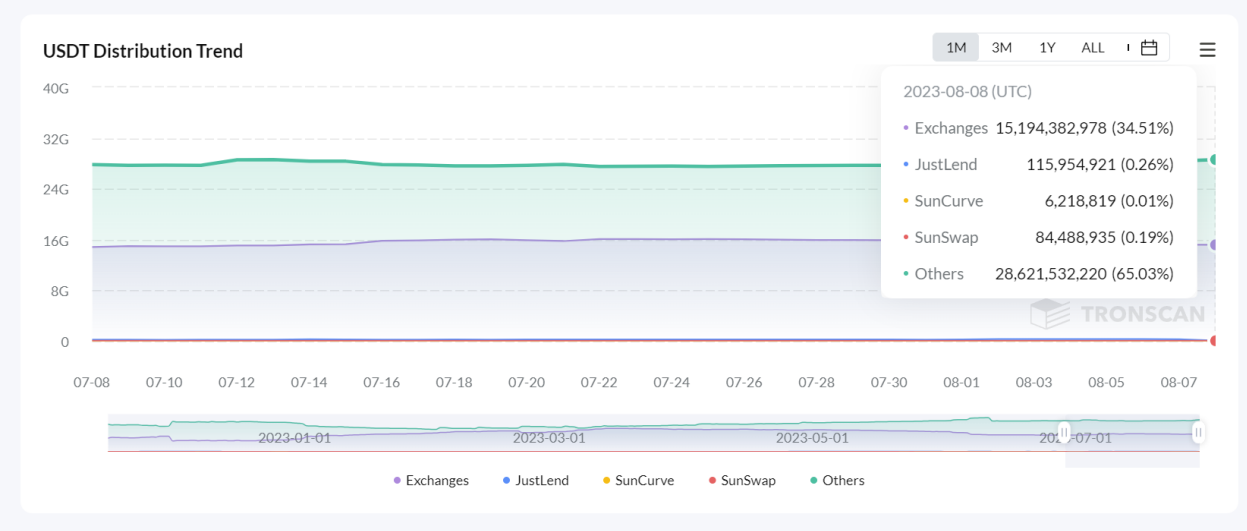
stUSDT's TVL on Tron increased by $401m from July 4th to July 21st. The TVL then increased to $635m on August 15th when questions were being asked regarding Huobi's solvency. While significant capital has flown into stUSDT on Tron, the supply is being controlled by two entities, raising questions about the success of the product.



Source: DefiLlama

- **DeFi Protocols**

The USDT locked on DeFi protocols account for less than 0.5% of the total supply on Tron. JustLend has 0.26% of the USDT on its platform while SunSwap has managed to attract 0.19% of the USDT supply. This indicates that USDT is not being widely used in the DeFi protocols on Tron, a sector that is still in its infancy on the network.



Source: TRONSCAN

Conclusion

In conclusion, Tron has become an important destination for USDT transfers due to its low transaction fees. The transfer flows are being dominated by smaller, retail wallets over larger institutions. Private transaction flows between wallets account for 79% of the volume. Meanwhile, Tron is also being utilized for inter-exchange transfers, allowing traders to use multiple centralized exchanges without significant overhead. Our analysis could not spot significant wash trading on the blockchain which is a positive sign. While $600m worth of funds have flown into stUSDT, the token is being held primarily by two wallets, resulting in a lack of transparency. Meanwhile, USDT is barely used on DeFi platforms, highlighting the infant DeFi ecosystem on Tron.

USDT transfers on Tron have remained resilient. If the transfers on Ethereum remain expensive, we might see further flow of funds into Tron specifically for private and inter-exchange transactions.