

Analysis of Potential Taxation of the Ukrainian Crypto Market

Overview and Financial Indicators

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Glossary



Glossary

- **Cryptocurrency:** A digital or virtual currency that uses cryptography for security. Cryptocurrencies operate on decentralized networks based on blockchain technology, with Bitcoin and Ethereum being the most well-known examples.
- **Mining:** The process of validating transactions on a blockchain network by solving complex mathematical problems. Miners are rewarded with newly minted cryptocurrency and transaction fees for securing the network.
- **Mining Pool:** A group of miners who combine their computational resources to increase their chances of successfully mining a block on the blockchain.
- **Transaction Fees:** Small amounts paid by users for processing transactions on a blockchain network.
- **Non-custodial Wallet Applications:** cryptocurrency wallets that give users full control over their private keys and funds.

Glossary

- **Centralized Exchange (CEX):** A cryptocurrency trading platform operated by a central authority, where users trade digital assets through a **custodial operational structure**, which typically offers higher liquidity and user-friendly interfaces.
- **Non-custodial Wallet Applications:** cryptocurrency wallets that give users full control over their private keys and funds.
- **Revenue:** The total income generated from a particular sector or activity. In the context of the cryptocurrency market, revenue can come from transaction fees, trading activities, and blockchain-based services.
- **Profit:** The financial gain made after deducting costs and expenses from revenue. In the cryptocurrency market, profit may be derived from mining, trading, or staking activities. *We use it a business margin indicator.*

Executive Summary



Executive Summary

~2.5% of global traffic belongs to users from Ukraine

Our research **primarily focused** on analyzing **Centralized Exchanges (CEXs)**.

An analysis of web traffic from **64 global exchanges** (including 6 Ukrainian exchanges) showed that, on average, **~2.5%** of users are Ukrainian, as part of the **global audience**

Executive Summary

~₹46 billions* is the CEX's profit from the Ukrainian audience

Based on an analysis of global and Ukrainian crypto markets, we selected 21 CEXs (15 global and 6 Ukrainian exchanges) for volume analysis and further calculations covering the period from 2021 to 2024.

According to our analysis, the profits earned by centralized exchanges (CEXs) from the Ukrainian audience are as follows (Img. 1):

- **2021: \$316.89M (₹13.11 billion)**, representing **2.43%** of global profits
- **2022: \$240.65M (₹9.95 billion)**, representing **4.91%** of global profits
- **2023: \$220.51M (₹9.12 billion)**, representing **4.36%** of global profits
- **2024: \$342.52M (₹14.16 billion)**, representing **5.43%** of global profits

In total, this amounts to **₹46.35 billion** from 2021 to 2024.

Executive Summary

~€8.34 billion is the amount of potential tax revenue from CEXs



Img. 1. Estimated tax amount and net profit of CEX from the Ukrainian audience

*The current USD/UAH exchange rate as of 10/25/2024 was used for conversion to hryvnia.

Executive Summary

~₹1.31 billion is the minimum calculated tax generated by CEX Ukrainian customers from only one CEX*

By applying a 5% tax rate, the estimated tax amounts generated for 2024 are as follows (Img. 11):

- For **10%** Profitability Rate: **\$31.6M (₹1.31 billion)**
- For **30%** Profitability Rate: **\$94.7M (₹3.92 billion)**
- For **50%** Profitability Rate: **\$157.9M (₹6.53 billion)**

**The current USD/UAH exchange rate as of 25.10.2024 was used for conversion to hryvnia*

Input Source Data



Input Source Data - Primary Objective

- **We were tasked** with collecting, analyzing, and presenting comprehensive data on the volume of Ukraine's cryptocurrency market, with a focus on revenue and profitability.
- **The goal** is to provide insights that will inform tax calculations for cryptocurrency-related activities within Ukraine.
- **To accomplish this**, we employed a data-driven approach that integrates blockchain transaction analysis, market trend evaluation, cryptocurrency and fiat flow tracking, along with insights into user behavior.
- After gathering all relevant data, **we applied advanced calculations and visualizations** to arrive at specific, actionable numbers.

Input Source Data - Resources

This report is derived from multiple reputable and transparent sources, combining data of the blockchain analysis, publicly available traffic insights and open statistical platforms. The primary data points include:

- **Blockchain Data***: We conducted an analysis of transaction data directly from the blockchain, which offers a transparent and verifiable record of cryptocurrency movements. Blockchain data ensures that our insights are backed by immutable, real-time transactional information, offering a highly granular view of market trends.
- **Traffic Data**: Traffic insights were collected from publicly available online resources, including web analytics and market research tools. This data reflects patterns of cryptocurrency exchange usage and peer-to-peer transaction volumes across various platforms and geographic regions.

**Within the objective of our analysis, we examined known wallets of Centralized Exchanges (CEXs).*

Input Source Data - Resources

- **Open Statistical Resources:** We utilized data from well-established statistical platforms that provide reliable information on cryptocurrency usage, trading volumes, and adoption metrics. These sources are recognized for their accuracy and consistent reporting within the financial sector.

By combining these sources, we provide a comprehensive and data-driven perspective on cryptocurrency activities within Ukraine, with a specific focus on transaction volumes of centralized exchanges.

Methodology and Data Validity



Methodology Used

Our methodology involved a structured approach to ensure accurate, data-driven insights.

We've followed these key steps:

Planning Research

- Highlighting main research data points
- Deciding on approach on calculating and visualising data
- Identifying resources

Gathering Data

- Collecting blockchain data such as transaction volumes, timestamps, non-custodial wallets
- Collecting statistical market and web-traffic data

Analyzing Data

- Aggregating and calculating gathered data
- Applying advanced trend analysis and revenue forecasting models
- Cross-reference check among similar reports

Combining Results

- Consolidating data for a comprehensive presentation in the deck.
- Leveraging advanced analytics to create impactful visualizations.

Methodology Statement

- Calculations were based on the **web-traffic data** and **inflowing, outflowing volumes** from each exchange.
- The web-traffic data was collected from the third-party service. This data reflects the overall **share** of global web-traffic attributed to centralized exchanges, specifying the web-traffic portion from Ukraine. **It's important to note** that this data does not specifically capture the number of registered or unique users but rather the **total volume of web-traffic**. Additionally, the influence of **VPN** usage has been factored into the final calculations. **Web-traffic** was collected from the relevant to date websites of the presented exchanges.
- The inflow and outflow volumes were collected by **the analysis of the cryptocurrency transactions** that are related to the specified centralised exchanges (CEX's).

Methodology Used - Validity of Data Points

Our approach focused on specific entities that were chosen as data points for key reasons:

- **Centralized Exchanges:**

- Global Exchanges:
 - i. Handle the **majority of global cryptocurrency volume** (according to the [CoinMarketCap](#)).
 - ii. Licensed as legal crypto-asset providers in many regions.
- Ukrainian Exchanges:
 - i. Have a significant share of engagement from the Ukrainian audience.
 - ii. Founded by or have a significant portion of their team from Ukraine.
 - iii. Based on analyzed advertising campaigns, they are targeted toward the Ukrainian market.

- **Mining Pools:**

- Handle significant part of the global **mining pools market**.
- Play a key role in securing and validating transactions globally.

- **Non-Custodial Wallet Applications:**

- Widely **available for downloading and installation** within Ukraine.

Validity of the 3rd Party Data

External statistical data was obtained from reputable and globally recognized third-party sources, including international organizations, traffic monitoring services, and blockchain data. This data is particularly valuable for analyzing the cryptocurrency landscape in Ukraine due to its:

- Use of both **bottom-up** and **top-down modeling**, ensuring comprehensive and accurate insights.
- Trend forecasting with proven statistical methods (**e.g., ARIMA, S-curve**) for reliable predictions.
- **Continuous updates and stringent quality checks**, ensuring data relevance and reliability over time.

Limitations

- Our calculations are based on **web traffic and volume analysis** of identified wallets by the Global Ledger on-chain analytics team. It's important to note that entities may also hold **additional "cold" wallets** that remain outside the reach of compliance measures.
- **Centralized Exchanges (CEXs)** were selected as the primary focus of this research due to their **leading role in the cryptocurrency market**. The scope of the research can be expanded upon request.
- This analysis covers 21 CEXs and the 5 most popular cryptocurrencies, constrained by the **limited time available for research**. The number of analyzed entities and cryptocurrencies can be expanded, which would result in a significant increase in both volumes and potential tax revenue.

Centralized Exchanges (CEX's)



Centralized Exchanges - Overview

To calculate tax coverage for **21 Centralized Exchanges (CEX's)**, we followed these steps:

- Analyzed 15 Global and 6 Ukrainian CEX's **user audience** using collected web traffic data (Table 1).
- Collected the total **Volume** based on the inflows and outflows of the most popular coins and tokens (Img. 4).
- Calculated the **profits** of exchanges separately from the global market and from the Ukrainian audience, based on collected web traffic data and an estimated profitability rate for centralized exchanges (Table 2, Table 3).
- Applied an **18% tax rate** to CEX profits to estimate tax coverage (Img. 7).

Centralized Exchanges - User Web-Traffic*

| Exchange Label | 2021 | | 2022 | | 2023 | | 2024 | |
|----------------------|----------------|------------|----------------|------------|----------------|------------|----------------|------------|
| | Global Traffic | UA Traffic | Global Traffic | UA Traffic | Global Traffic | UA Traffic | Global Traffic | UA Traffic |
| Worldwide Exchange 1 | 13,920,962 | 302,629 | 17,331,253 | 452,873 | 10,699,896 | 345,403 | 12,819,436 | 411,327 |
| Worldwide Exchange 2 | 400,255 | 5,419 | 468,668 | 29,219 | 190,284 | 8,455 | 249,935 | 7,998 |
| Worldwide Exchange 3 | 539,771 | 6,558 | 409,178 | 10,865 | 510,936 | 10,628 | 427,860 | 7,365 |
| Worldwide Exchange 4 | 2,371,404 | 4,369 | 2,233,778 | 19,644 | 1,586,510 | 14,372 | 1,823,845 | 14,592 |
| Worldwide Exchange 5 | 152,326 | 664 | 416,700 | 387 | 245,895 | 1,239 | 547,534 | 2,718 |
| Worldwide Exchange 6 | 373,512 | 4,817 | 1,284,651 | 52,770 | 941,310 | 45,011 | 1,383,241 | 97,982 |
| Worldwide Exchange 7 | 36,990 | 34,951 | 33,705 | 27,677 | 16,377 | 12,144 | 7,878 | 5,796 |
| Worldwide Exchange 8 | 79,706 | 2,890 | 105,007 | 13,388 | 126,192 | 21,503 | 150,092 | 36,674 |
| Worldwide Exchange 9 | 320,900 | 15,971 | 179,800 | 13,996 | 141,161 | 12,860 | 126,582 | 13,598 |

Table 1. Global and Ukraine user web-traffic during 2021-2024

**Data represents actual figures for year-end and projections for 2024*

Centralized Exchanges - User Web-Traffic*

| Exchange Label | 2021 | | 2022 | | 2023 | | 2024 | |
|----------------------------|----------------|------------|----------------|------------|----------------|------------|----------------|------------|
| | Global Traffic | UA Traffic | Global Traffic | UA Traffic | Global Traffic | UA Traffic | Global Traffic | UA Traffic |
| Worldwide Exchange 10 | 455,760 | 4,934 | 585,506 | 8,088 | 326,177 | 6,574 | 469,515 | 9,268 |
| Worldwide Exchange 11 | 1,669,812 | 175 | 1,033,099 | 210 | 664,439 | 256 | 944,323 | 256 |
| Worldwide Exchange 12 | 602,386 | 5,519 | 1,242,186 | 13,390 | 639,330 | 9,762 | 906,502 | 11,646 |
| Worldwide Exchange 13 | 9,638 | 132 | 37,684 | 281 | 127,151 | 4,083 | 215,402 | 15,977 |
| Worldwide Exchange 14 | 388,626 | 1,761 | 203,695 | 977 | 133,416 | 596 | 172,353 | 542 |
| Worldwide Exchange 15 | 1,293,026 | 294 | 593,283 | 233 | 233,661 | 79 | 359,755 | 168 |
| Ukraine Founded Exchange 1 | 36,990 | 34,951 | 33,705 | 27,677 | 16,377 | 12,144 | 7,878 | 5,796 |
| Ukraine Founded Exchange 2 | 79,706 | 2,890 | 105,007 | 13,388 | 126,192 | 21,503 | 150,092 | 36,674 |
| Ukraine Founded Exchange 3 | 4,785 | 4,524 | 2,784 | 2,630 | 1,818 | 1,732 | 1,790 | 1,573 |

Table 1. Global and Ukraine user web-traffic during 2021-2024

**Data represents actual figures for year-end and projections for 2024*

Centralized Exchanges - User Web-Traffic*

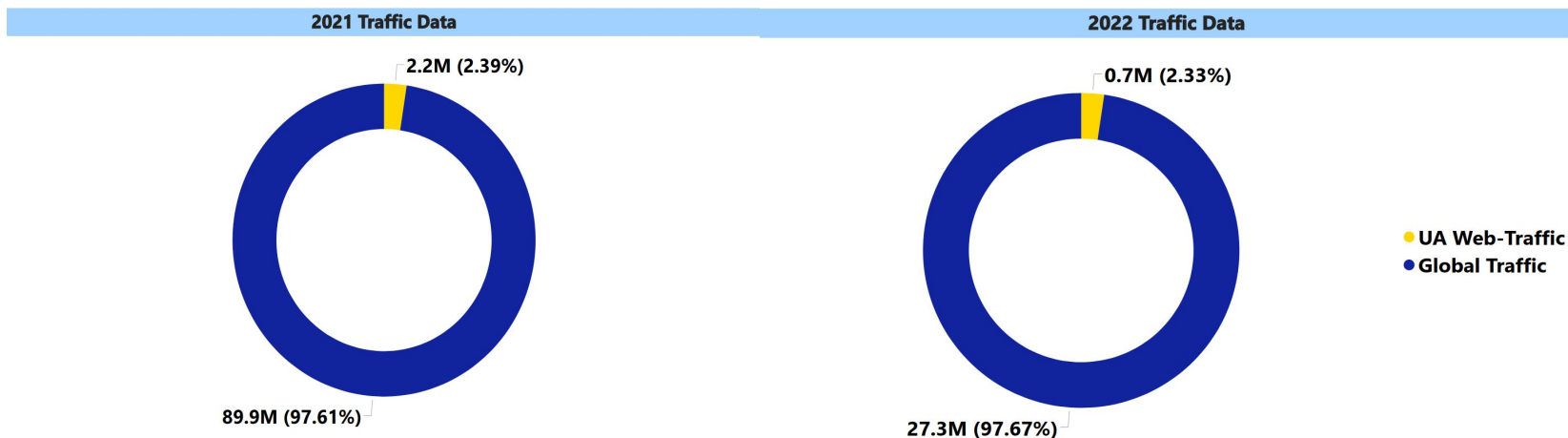
| Exchange Label | 2021 | | 2022 | | 2023 | | 2024 | |
|----------------------------|----------------|------------|----------------|------------|----------------|------------|----------------|------------|
| | Global Traffic | UA Traffic | Global Traffic | UA Traffic | Global Traffic | UA Traffic | Global Traffic | UA Traffic |
| Ukraine Founded Exchange 4 | 334 | 290 | 331 | 292 | 180 | 163 | 173 | 158 |
| Ukraine Founded Exchange 5 | 80,069 | 74 | 5,320 | 191 | 904 | 168 | 585 | 256 |
| Ukraine Founded Exchange 6 | 397 | 218 | 395 | 216 | 7,208 | 6,960 | 413 | 316 |

Table 1. Global and Ukraine user web-traffic during 2021-2024

**Data represents actual figures for year-end and projections for 2024*

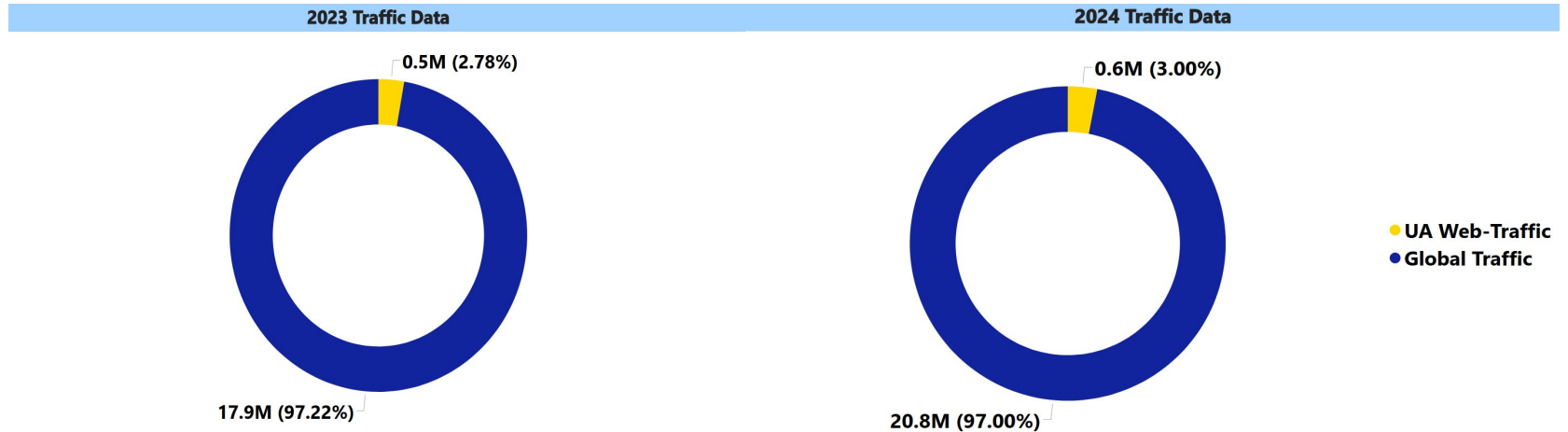
Centralized Exchanges - User-Web Traffic - Ukraine Audience

Ukrainian users account for a **significant portion** of the web traffic (Img.2,3). An average portion is equal to **2.5% of the total user web traffic** across all regions.



Img.2. Web-traffic comparing of Global & Ukraine users from 2021 to 2022

Centralized Exchanges - User Web Traffic - Ukraine Audience



Img.3. Web-traffic comparing of Global & Ukraine users from 2023 to 2024

Centralized Exchanges - User Traffic - VPN

- We've considered the possibility that **some users in Ukraine may use VPN services**, which could potentially distort the accuracy of Ukrainian traffic data on cryptocurrency exchanges. However, based on our findings, **this factor does not significantly impact the overall conclusions of our research.**
- Across all 9 VPN providers analyzed, the total global user base reached **135 million** in 2024, with substantial growth observed over the period. Despite this large audience, Ukrainian users consistently represented only **0.10%** of the total user base.
- Given these insights, we conclude that the relatively small percentage of Ukrainian VPN users does not materially distort the traffic data used in our research. As a result, **our findings** related to Ukraine user's traffic, revenue and profit **remain reliable and accurate.**

Centralized Exchanges - USD Volumes

In this analysis, we conducted a detailed examination of the financial flows across the exchanges. This involved tracking the cryptocurrency inflow and outflow volumes from **2021 to 2024** across the most popular blockchains*:

| Blockchain | Token/Coins |
|------------|-----------------------------------|
| Bitcoin | BTC |
| Ethereum | ETH, USDT (Tether), USDC (Circle) |
| Tron | USDT (Tether), USDC (Circle) |

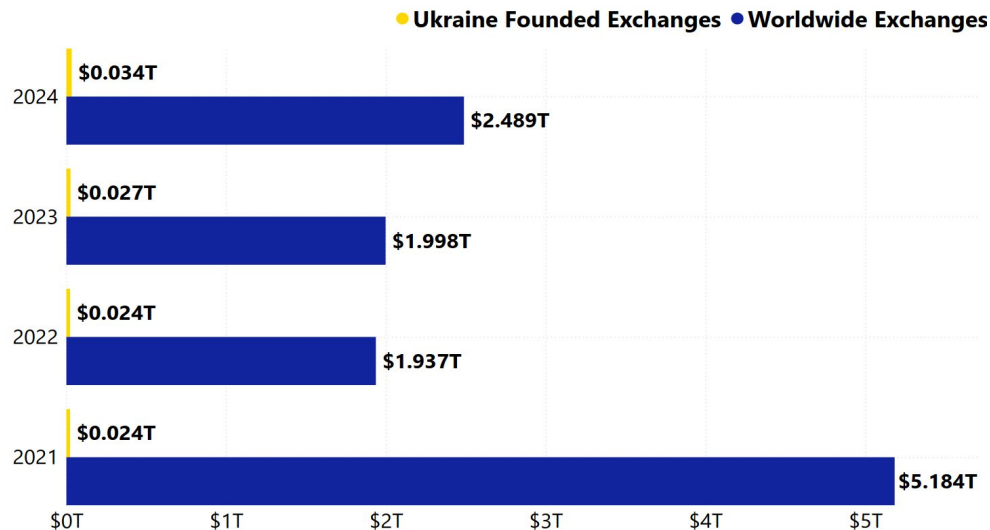
This comprehensive assessment provides valuable insights into how these exchanges contribute to the activity of Ukraine's user base, allowing us to calculate the overall **USD Volume from 2021 to 2024**.

**Other blockchains are not included due to the less focus and interest on the market*

Centralized Exchanges - USD Volumes

Ukraine-founded exchanges show **steady growth**.

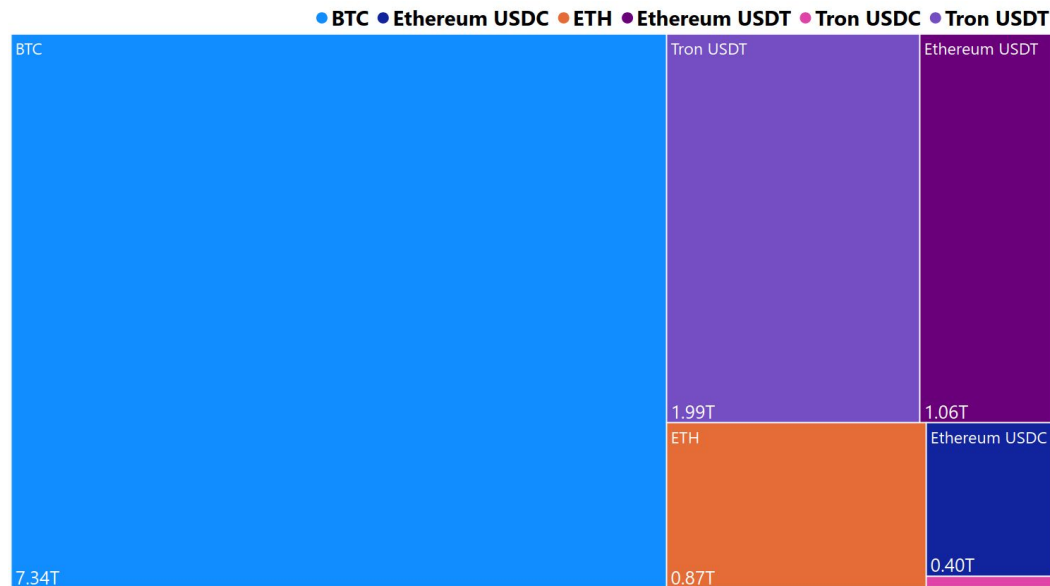
However, as can be seen from the graph below, the Worldwide Exchanges hold the major part of the whole Cryptocurrency Market Volume comparing to Ukraine-founded exchanges (Img.4).



Img.4. Volumes comparing of the Ukraine Founded and Worldwide Exchanges across 2021 and 2024 years

Centralized Exchanges - USD Volumes - Dominance

Specific **Tokens and Coins being dominating** on the Market across 2021 to 2024 (Img.5).



Img.5. Volume of the most popular Coins and Tokens used within CEX's from 2021 to 2024

Centralized Exchanges - Profit

- To estimate the **yearly profit** generated by **centralized exchanges (CEXs)**, we've calculated the **total USD Volume** for each exchange as the previous step (Img.5).
- We then applied an **industry-standard profit margin**, representing the typical fees CEXs earn from facilitating trades and transactions. By applying this margin to the average of inflows and outflows (volume), we were able to accurately estimate the profit for each exchange:

*Profit from Worldwide audience =
CEX Inflow and Outflow (Volume) by Year * Profit Margin*

- The following data reflects the **estimated global profit generated by** exchanges across the years 2021 to 2024 (Table 2).

Centralized Exchanges - Global Profit

| Exchange Label | 2021 Calculated Profit | 2022 Calculated Profit | 2023 Calculated Profit | 2024 Calculated Profit |
|----------------------|------------------------|------------------------|------------------------|------------------------|
| Worldwide Exchange 1 | \$2.99B | \$1.22B | \$1.43B | \$1.66B |
| Worldwide Exchange 2 | \$4.25B | \$757M | \$267M | \$88M |
| Worldwide Exchange 3 | \$508M | \$341M | \$652M | \$595M |
| Worldwide Exchange 4 | \$667M | \$321M | \$526M | \$847M |
| Worldwide Exchange 5 | \$39M | \$22M | \$49M | \$84M |
| Worldwide Exchange 6 | \$69M | \$146M | \$444M | \$386M |
| Worldwide Exchange 7 | \$2.86B | \$1.47B | \$1.08B | \$1.85B |
| Worldwide Exchange 8 | \$136M | \$99M | \$85M | \$169M |
| Worldwide Exchange 9 | \$167M | \$76M | \$93M | \$99M |

**Table 2. Global Calculated Profit for Centralised Exchanges (CEX's)
during the period of 2021 - 2024**

Centralized Exchanges - Global Profit

| Exchange Label | 2021 Calculated Profit | 2022 Calculated Profit | 2023 Calculated Profit | 2024 Calculated Profit |
|----------------------------|------------------------|------------------------|------------------------|------------------------|
| Worldwide Exchange 10 | \$176M | \$128M | \$101M | \$92M |
| Worldwide Exchange 11 | \$463K | \$1.14M | \$2.36M | \$6.91M |
| Worldwide Exchange 12 | \$259M | \$46.46M | \$69.25M | \$106.28M |
| Worldwide Exchange 13 | \$308.48M | \$34.71M | \$94.47M | \$79.32M |
| Worldwide Exchange 14 | \$105.35M | \$27.58M | \$30.40M | \$52.42M |
| Worldwide Exchange 15 | \$415.70M | \$152.22M | \$74.72M | \$106.16M |
| Ukraine Founded Exchange 1 | \$36.96M | \$26.08M | \$13.52M | \$24.29M |
| Ukraine Founded Exchange 2 | \$17.49M | \$24.12M | \$30.23M | \$39.19M |
| Ukraine Founded Exchange 3 | \$112K | \$6.31K | \$4.57K | \$2.52K |

Table 2. Global Calculated Profit for Centralised Exchanges (CEX's) during the period of 2021 - 2024

Centralized Exchanges - Global Profit

| Exchange Label | 2021 Calculated Profit | 2022 Calculated Profit | 2023 Calculated Profit | 2024 Calculated Profit |
|----------------------------|------------------------|------------------------|------------------------|------------------------|
| Ukraine Founded Exchange 4 | \$16.44K | \$19.20K | \$51.97K | \$15.39K |
| Ukraine Founded Exchange 5 | \$461.85K | \$8.42M | \$21.99M | \$21.41M |
| Ukraine Founded Exchange 6 | \$5.20M | \$2.21M | \$1.19M | \$438.83K |

Table 2. Global Calculated Profit for Centralised Exchanges (CEX's) during the period of 2021 - 2024

- Overall, centralized exchanges have generated: **\$ 13.02B in 2021, \$4.90B in 2022, \$5.06B in 2023, and \$6.30B projected for 2024.**

Centralized Exchanges - Profit - Ukraine Audience

- We've leveraged user traffic data (Table 1) alongside volume figures (Img. 4) to estimate the **profit from Ukrainian audience** on listed CEX's.
- By applying the share of Ukrainian user traffic to the overall transaction volumes, **we were able to isolate the portion of profit attributable** to Ukraine-based users according to the formula:

$$\text{Profit from Ukrainian Audience} = \text{UA Web-Traffic \% by Year} * \text{Profit from Worldwide audience by Year}$$

- The following data reflects the **estimated profit generated by the Ukrainian audience** on these exchanges across the years 2021 to 2024 (Table 3).

Centralized Exchanges - Profit - Ukraine Audience

| Exchange Label | UA audience Calculated Profit 2021 | UA audience Calculated Profit 2022 | UA audience Calculated Profit 2023 | UA audience Calculated Profit 2024 |
|----------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Worldwide Exchange 1 | \$65.09M | \$31.91M | \$46.09M | \$53.31M |
| Worldwide Exchange 2 | \$57.58M | \$47.20M | \$11.87M | \$2.83M |
| Worldwide Exchange 3 | \$6.17M | \$9.05M | \$13.57M | \$10.25M |
| Worldwide Exchange 4 | \$1.23M | \$2.82M | \$4.77M | \$6.78M |
| Worldwide Exchange 5 | \$0.17M | \$0.02M | \$0.25M | \$0.42M |
| Worldwide Exchange 6 | \$0.90M | \$6.00M | \$21.24M | \$27.37M |
| Worldwide Exchange 7 | \$142.37M | \$114.40M | \$98.27M | \$198.43M |
| Worldwide Exchange 8 | \$1.47M | \$1.37M | \$1.72M | \$3.34M |
| Worldwide Exchange 9 | \$17.53K | \$15.45K | \$35.99K | \$26.77K |

Table 3. CEX's Calculated Profit for Ukraine audience during the period of 2021 - 2024

Centralized Exchanges - Profit - Ukraine Audience

| Exchange Label | UA audience Calculated Profit 2021 | UA audience Calculated Profit 2022 | UA audience Calculated Profit 2023 | UA audience Calculated Profit 2024 |
|-------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Worldwide Exchange 10 | \$1.61M | \$1.38M | \$1.55M | \$1.18M |
| Worldwide Exchange 11 | \$6.34K | \$8.47K | \$75.87K | \$512.77K |
| Worldwide Exchange 12 | \$1.17M | \$222.83K | \$309.36K | \$334.22K |
| Worldwide Exchange 13 | \$70.14K | \$13.63K | \$31.94K | \$37.04K |
| Worldwide Exchange 14 | \$437.25K | \$146.14K | \$230.53K | \$511.41K |
| Worldwide Exchange 15 | \$58.02K | \$52.57K | \$48.81K | \$12.15K |
| Ukraine Founded Exchange 1 | \$34.92M | \$21.42M | \$10.03M | \$17.87M |
| Ukraine Founded Exchange 2 | \$0.63M | \$3.08M | \$5.15M | \$9.58M |
| Ukraine Founded Exchange 3 | \$105.63K | \$5.96K | \$4.36K | \$2.21K |

Table 3. CEX's Calculated Profit for Ukraine audience during the period of 2021 - 2024

Centralized Exchanges - Profit - Ukraine Audience

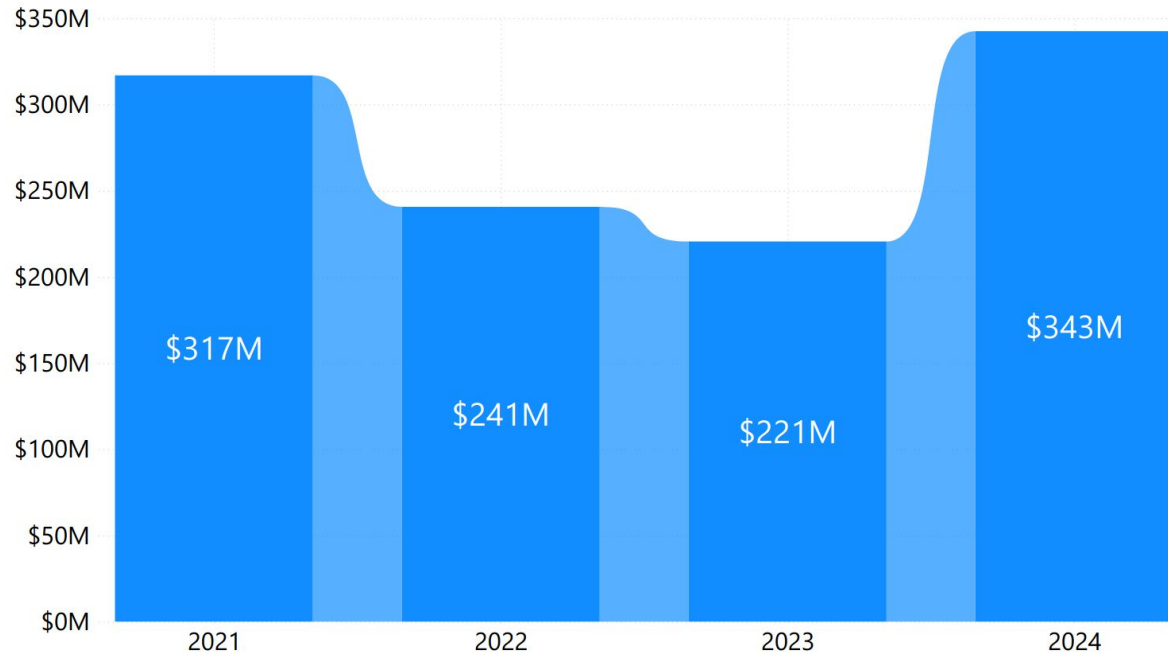
| Exchange Label | UA audience Calculated Profit 2021 | UA audience Calculated Profit 2022 | UA audience Calculated Profit 2023 | UA audience Calculated Profit 2024 |
|-------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Ukraine Founded Exchange 4 | \$14.27K | \$16.94K | \$47.06K | \$14.06K |
| Ukraine Founded Exchange 5 | \$427 | \$302.14K | \$4.09M | \$9.37M |
| Ukraine Founded Exchange 6 | \$2.86M | \$1.21M | \$1.15M | \$335.76K |

Table 3. CEX's Calculated Profit for Ukraine audience during the period of 2021 - 2024

- In total, the Ukraine user base has contributed to generating **\$316.89M in 2021**, **\$240.65M in 2022**, **\$220.51M in 2023**, and is projected to gather **\$342.52M in 2024**.

Centralized Exchanges - Profit - Ukraine Audience

Profit from Ukrainian Audience **raises with a 55.32% growth** from 2023 to 2024.



Img.6. CEX Profits from Ukraine Audience across period from 2021 to 2024

Centralized Exchanges - Tax Calculations

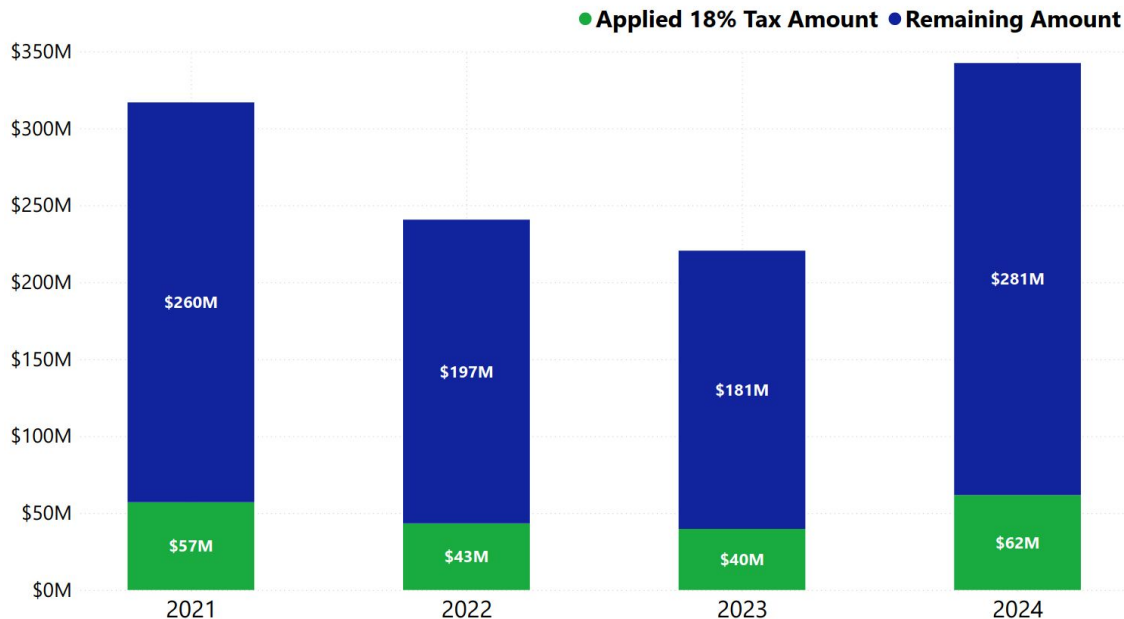
- By calculating the **potential profits** generated by centralized exchanges (CEX) from the Ukrainian audience (Table 3), we gain valuable insight into tax liabilities.
- Leveraging this profit data allows us to estimate the **taxes these businesses should pay**.
- For the following calculations, an **18% tax rate** was applied to the profits.

$$\text{Estimated Tax Amount} = \text{Profit from Ukrainian Audience} * \text{Applied Tax Rate}$$

- The following data reflects the **estimated tax amounts** for these exchanges across the years 2021 to 2024 (Img. 7).

Centralized Exchanges - Profit - Tax Calculations

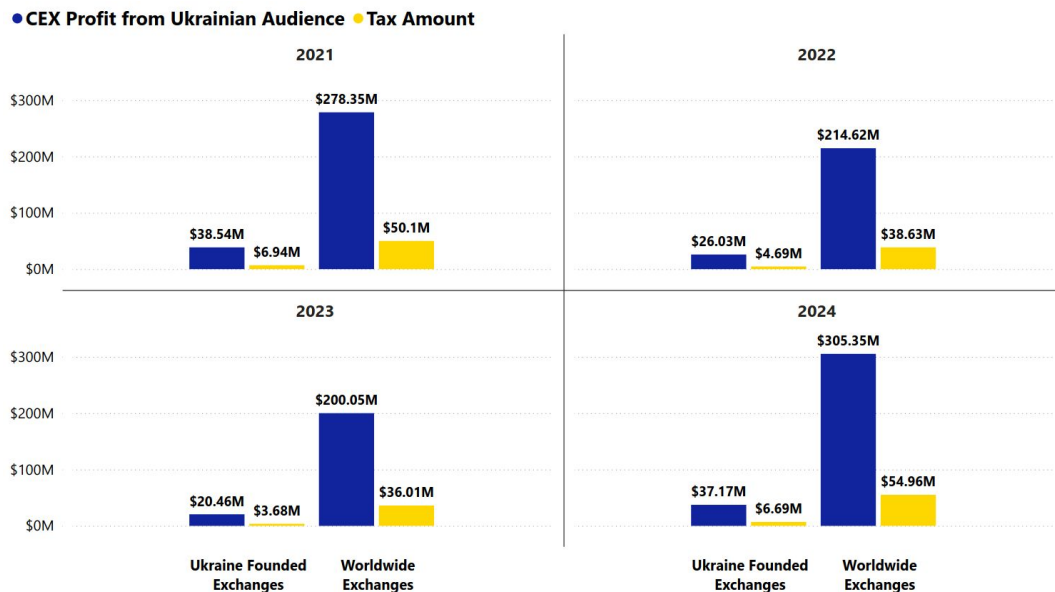
Tax generated from the Ukrainian audience **continue to rise** steadily from CEX's.



Img.7. Tax and Remaining Amounts Generated from the Ukrainian Audience in Centralized Exchanges (CEXs)

Centralized Exchanges - Profit - Tax Calculations

Worldwide CEX's are overperforming Ukraine Founded Exchanges on Tax Amount by **156.88%** on Average across years.



Img.8. CEX Profit from Ukrainian Audience and Tax Amount groped by Ukrainian Founded Exchanges during 2021 - 2024.

CEX Customers



CEX Customers - Validity of Approach

This part of research is aimed to understand and answer the question: **How the profit of CEX users can be taxed by an appropriate government institutions?**

Based on the worldwide practices of cryptocurrency regulation, we assumed that **regulated CEXs in Ukraine will provide to government institutions the necessary data about users activity and accordingly extracted trading profit.**

Let's take a look at how it implemented in the worldwide on the following slides.

CEX Customers - Validity of Approach - Worldwide practices

Several countries have implemented tax regulations on cryptocurrency earnings, especially on centralized exchanges (CEXs) where users convert or withdraw profits. Here are some examples of these regulations in different countries:

- **United States.** In the U.S., profits from cryptocurrency transactions on CEXs are subject to capital gains tax. This includes earnings from selling or exchanging crypto assets, which are considered taxable events by the IRS. U.S. taxpayers are required to report any capital gains or losses on these transactions through forms such as 1040 or 8949. Additionally, new IRS guidelines mandate that brokers and exchanges report sales of digital assets starting in 2025 to ensure tax compliance. More information is available on the [IRS website](#) and [Blockpit](#).
- **United Kingdom.** The UK requires individuals to pay capital gains tax on profits earned from crypto assets when sold or exchanged through centralized exchanges. The tax rate depends on income level, with a 10% rate for basic-rate taxpayers (those earning up to £50,270 annually) and a 20% rate for higher earners. The tax threshold for capital gains is currently £6,000, but it may change in upcoming tax years. Details on how HMRC taxes crypto assets are available on [HMRC's official site](#) and [Koinly](#).

CEX Customers - Validity of Approach - Worldwide practices

- **Canada.** In Canada, the Canada Revenue Agency (CRA) treats cryptocurrency as property, and any profit from selling or trading it is subject to capital gains tax on 50% of the gains. For individuals involved in frequent trading or cryptocurrency business activities, these earnings may be taxed as business income. For more guidance, see [Canada Revenue Agency](#).
- **Australia.** The Australian Taxation Office (ATO) also considers cryptocurrency as an asset, making capital gains tax applicable to profits from selling crypto assets through exchanges. Holding crypto for over 12 months before selling may allow for a 50% discount on the capital gains tax. Additional information on crypto taxation in Australia is available on the [ATO website](#).

These examples show how various countries are implementing tax frameworks to capture cryptocurrency earnings through centralized exchanges and ensure tax compliance among CEX customers.

CEX Customers - Validity of Approach - Calculations

In order to predict and tax the extracted profit by Ukrainian CEX customers, there were executed several calculations in the following sequential processes:

1. **Volume calculation:** To calculate and predict the volume of withdrawals initiated by Ukrainian CEX customers from the specified CEX during the 2024.
2. **Profit prediction:** To predict the profit earned by Ukrainian users by applying different profitability scenarios.
3. **Taxes calculation:** To apply 5% tax rate to predicted profits.

CEX Customers - Volume Calculation

The **Worldwide Exchange 1** was chosen as the main object for further calculations. It was chosen as the largest exchange with the most active and engaged Ukrainian users (Table 1).

During the data preparation process the main task was to gather a sample of transactions close to real user transactions. That's why we executed the following list of activities:

1. Identify “hot” wallets that processing user's requests for withdraw in the [specified chains](#).
2. Export all outgoing transactions of these wallets.

CEX Customers - Volume Calculation

3. Review and create a relatable dataset of users transaction by applying the following filtering criteria in order to exclude specific data:

- Exclude outputs to the “hot” & “cold” wallets that belong to known non-UA CEX's, investment/venture funds, custodian providers to which **Worldwide Exchange 1** serves as the source of liquidity.
- Excluded outputs meeting receipts exceeding **~\$300K*** for each token/coin in equivalent.

The next slide presents data from BEFORE and AFTER post-processing to compare volumes attributed to businesses and regular users (Table 4).

**Our observations suggest that it's far more common for business outflows to exceed \$300K, a threshold that typical CEX customers rarely reach.*

CEX Customers - Volume Calculation – % of User Transactions

| Token/Coin | Total Outflow Amount (01.01.2024 - 06.11.2024) | User Transaction Volume (after post-processing) (01.01.2024 - 06.11.2024) | % of User Transactions from the Total Amount (01.01.2024 - 06.11.2024) |
|----------------------|---|---|--|
| Bitcoin | \$162.87B | \$11.40B | 7.00% |
| Ether | \$79.35B | \$9.07B | 11.43% |
| USDT (Tether ERC-20) | \$146.07B | \$9.23B | 6.32% |
| USDC (Circle ERC-20) | \$101.78B | \$72.22B | 70.96% |
| USDT (Tether TRC-20) | \$246.27B | \$98.31B | 39.92% |
| USDC (Circle TRC-20) | \$1.75B | \$1.68B | 96.00% |

Table 4. Comparative Table of Total Outflow and User-Initiated Outflow

CEX Customers - Volume Calculation

Focusing on historical trends, we applied projection analysis to the collected data and estimated volumes for the period from November 8 to December 31, 2024.

Accordingly, the next step was to determine the cumulative value of the filtered transactions and the projected results for 2024 (Table 5).

CEX Customers - Volume Calculation - Worldwide

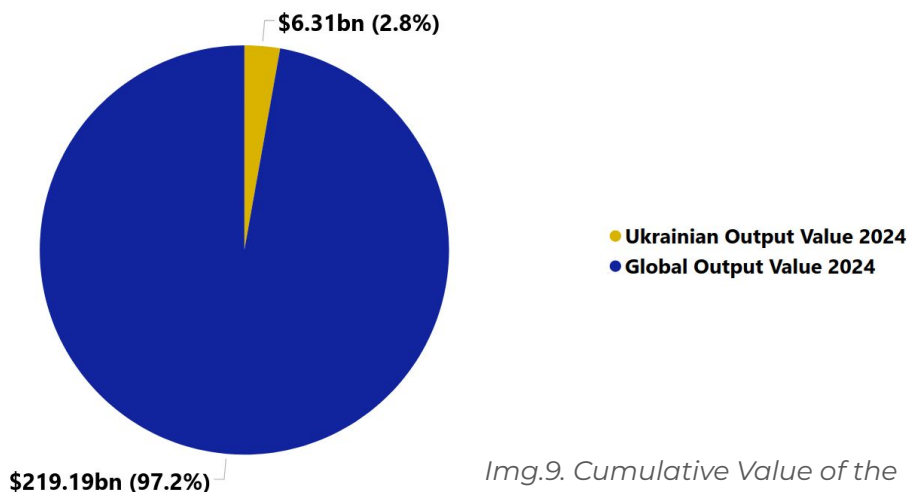
| Token/Coin | Calculated Amount (in USD) (01.01.2024 - 06.11.2024) | Projected Amount (in USD) (07.11.2024 - 31.12.2024) | Total for 2024 |
|----------------------|---|--|----------------|
| Bitcoin | \$11.40B | \$1.93B | \$13.33B |
| Ether | \$9.07B | \$1.54B | \$10.60B |
| USDT (Tether ERC-20) | \$9.23B | \$1.56B | \$10.79B |
| USDC (Circle ERC-20) | \$72.22B | \$12.23B | \$84.44B |
| USDT (Tether TRC-20) | \$98.31B | \$16.65B | \$114.96B |
| USDC (Circle TRC-20) | \$1.68B | \$0.28B | \$1.97B |
| Grand Total: | \$225.5B | | |

Table 4. Calculated and predicted volumes of users withdrawals from the specified CEX during the 2024

CEX Customers - Volume Calculation - Ukraine

After determination of cumulative value, we **multiplied the cumulative value** by the **percentage of traffic attributed to Ukrainian** web-traffic on Worldwide Exchange 1 specifically, which allowed for us to estimate more closely tailored to the user traffic.

- **Global Output Value** is calculated to be \$219.19bn (€9.07 trillion)
- **Ukrainian Output Value** is calculated to be \$6.31bn (€260.98 billion)



Img.9. Cumulative Value of the global and Ukraine Holders

CEX Customers - Profit Prediction

- Since the exact profitability of individual users is unknown and highly variable, we used different profit percentages (**e.g., 10%, 30%, 50%**) to see how varying levels of profitability affect the estimated outcomes.

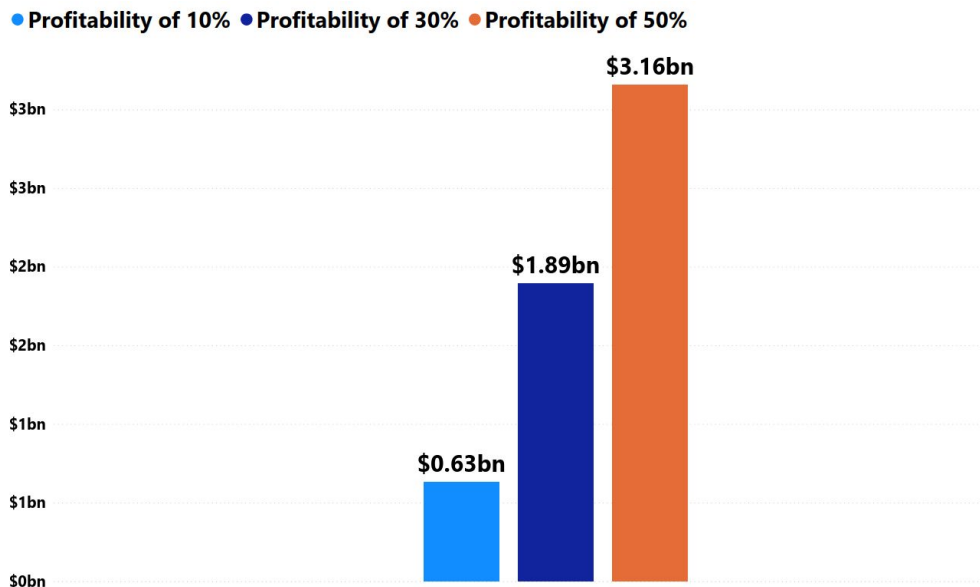
*UA CEX Customers Profit =
Cumulative Value * % of Profitability*

- The following data reflects the **estimated profit** for Ukrainian users of **Worldwide Exchange 1** during the 2024 (Img. 13).

CEX Customers - Profit Prediction

Profits earned by Ukrainian users of **Worldwide Exchange 1** are estimated at:

- For 10% - \$0.63B (₺26.10bn) profit.
- For 30% - \$1.89bn (₺78.17bn) profit.
- For 50% - \$3.16bn (₺130.70bn) profit.



Img.10. Profits based on the applied return rate of 10%, 30%, 50%.

CEX Customers - Taxes calculation

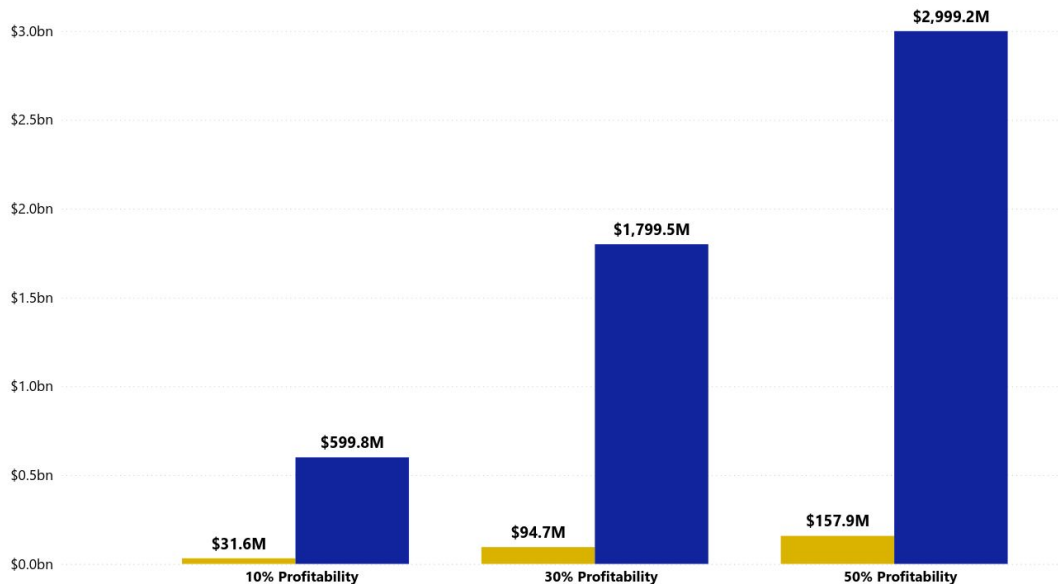
- With the calculated profit we have gained needed information to extract Tax value.
- For the following calculations, we have applied **5% tax rate for each profitability % scenario**:

*UA CEX Customers Tax =
Profit based on % of Profitability * 5%*

- The following data reflects the **estimated tax** for Ukrainian users of **Worldwide Exchange 1** during the 2024 (Img. 14).

CEX Customers - Taxes calculation

● Applied 5% Tax Amount ● Remaining Amount



By applying 5% tax rate we received the following tax amounts:

- For 10% - \$31.6M (€1.31bn)
- For 30% - \$94.7M (€3.92bn)
- For 50% - \$157.9M (€6.53bn)

Img.11. Tax calculations based on the applied profitability rate .

Mining Sector



Mining Sector

- **Miners** play a critical role in the **cryptocurrency ecosystem**, providing the **computational power** needed to validate transactions and secure **blockchain networks**.
- In Ukraine, **mining** has become a key aspect of the **digital economy**, with multiple mining pools operating in the region.
- However, estimating the exact **profits** from mining activities can be complex due to fluctuating variables such as **electricity costs**, **mining difficulty**, and the **volatility of cryptocurrency prices**.

Mining Sector - Why Miners Matter

- **Revenue Generation:** Mining operations generate revenue by receiving block rewards (newly minted coins) and transaction fees.
- **Challenges in Profit Calculation:** Despite their importance, accurately calculating the profits of miners is difficult due to several factors:
 - **Volatility in Cryptocurrency Prices:** Mining profits depend heavily on the price of the cryptocurrency being mined, which can fluctuate significantly over short periods.
 - **Operating Costs:** Energy consumption is one of the largest costs for miners, and local electricity rates play a major role in determining profitability.
 - **Mining Difficulty:** As more miners join the network, mining becomes more competitive, and the computational difficulty increases, affecting overall profitability.

Mining Sector - Summary

- We've analyzed **13 major mining pools**, including **Foundry USA**, **AntPool**, **F2Pool**, and **ViaBTC**.
- The percentage of Ukrainian miners based on web traffic ranges from **0.1%** in some pools to over **3%** in others, with an average share of around **0.94%**.

| Period | Total Mining Pool Revenue | Calculated Revenue for Ukraine Miners |
|--------|---------------------------|---------------------------------------|
| 2021 | \$4.21B | \$39.36M |
| 2022 | \$2.43B | \$22.74M |
| 2023 | \$2.65B | \$24.81M |
| 2024 | \$2.80B | \$26.20M |
| Total | \$12.09B | \$113.15M |

Table 5. Total Mining Pools and Ukraine Miners Revenue during the period 2021 - 2024

Non-Custodial Wallet Applications



Non-Custodial Wallet Applications

- We've focused on the **most popular cryptocurrency non-custodial wallets** and their download patterns, specifically within Ukraine.
- By tracking wallet downloads over several years, we were able to determine the **percentage of Ukrainian users compared to global figures** and calculate the yearly downloads for Ukraine.
- Ukraine's crypto wallet downloads, while a smaller portion of global figures, show a consistent and steady adoption of cryptocurrency wallets.

Non-Custodial Wallet Applications - Summary

- We've analyzed download data starting from **December 2020** through **May 2024**, covering a significant span of time to assess trends in crypto wallet adoption.
- On average, the percentage of Ukrainian downloads remained relatively small - **0.24%** compared to global downloads, yet consistently contributed to the overall user base of these wallets.

Yearly Downloads in Ukraine:

- In **2021**, Ukraine recorded approximately **682,224** downloads.
- In **2022**, Ukrainian downloads reached around **455,223**.
- By **2023**, this figure stood at **348,795**.
- For **2024**, as of May, Ukraine had already logged **219,378** downloads, with a projected increase by the year-end.

Statistical Data from the 3rd Party Service



Statistical Data from the 3rd Party

As the **supplement to our primary research**, we've **collected additional data from the 3rd Party service provider that** is primarily oriented on the gathering of statistical worldwide data and recognized as the **key statistic market player**.

This data represents **Ukraine's user market** across three key sectors, estimating the **minimal profits generated**, according to the 3rd party classification:

- **Cryptocurrencies**

Digital currencies secured by cryptography and powered by decentralized blockchain networks. Data focus includes cryptocurrency exchanges, trading platforms, and neobanks serving B2C or both B2B and B2C clients, excluding those focused solely on B2B.

- **Non-fungible tokens (NFTs)**

Non-fungible tokens (NFTs) represent ownership of digital or real assets like art, music, and real estate, secured by blockchain (Ethereum, Solana, etc.). Data focus is on NFT marketplaces serving B2C or both B2B and B2C clients, excluding those focused solely on B2B.

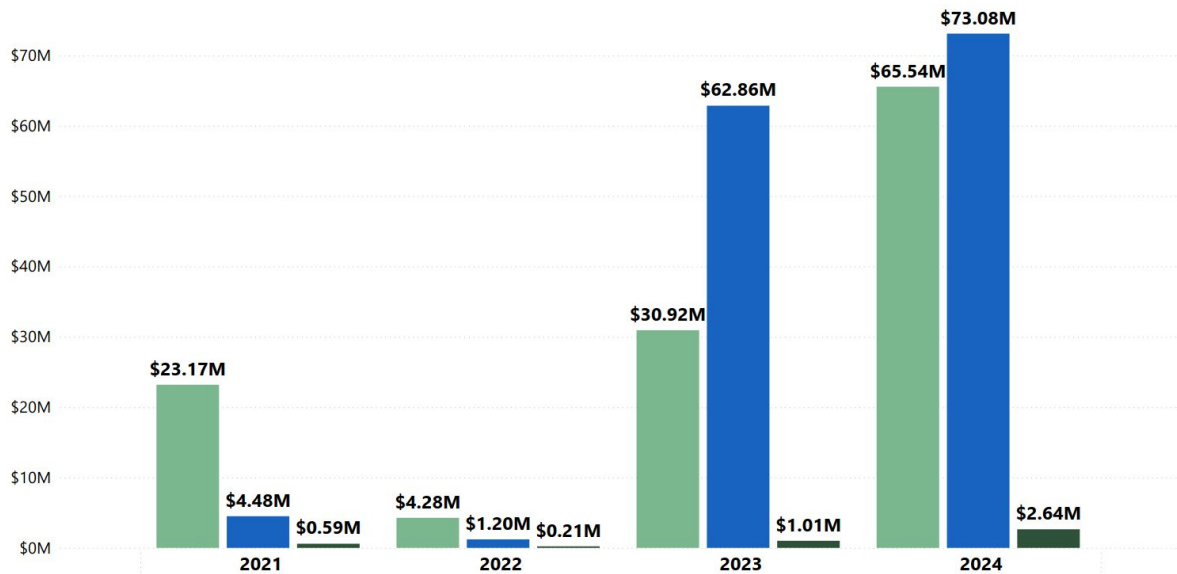
- **Decentralized Finance (DeFi)**

Decentralized Finance (DeFi) encompasses financial services built on blockchain without intermediaries like banks. Data focus includes decentralized exchanges (DEXs), lending/borrowing platforms, payment systems, and stablecoins serving B2C or both B2B and B2C markets.

Statistical Data from the 3rd Party Service

DeFI keeps **dominating** among other sectors (Img. 9).

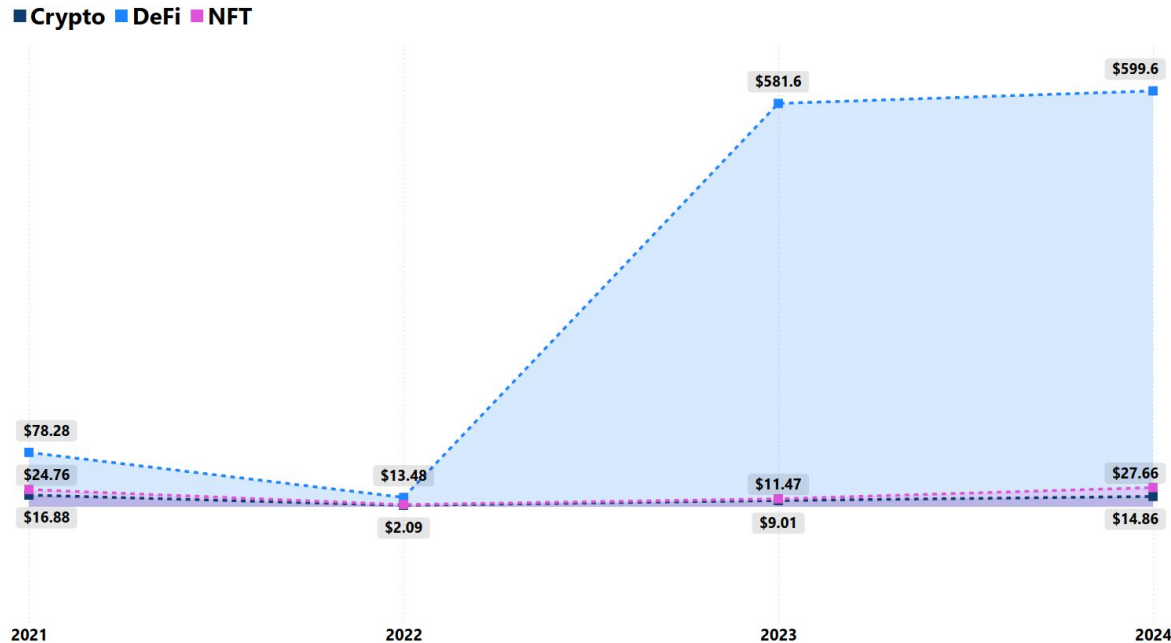
● Crypto ● DeFi ● NFT



Img.12. Revenue generated by the Ukraine market from 2021 to 2024

Statistical Data from the 3rd Party Service

Revenue growth per user in Ukraine within sectors **shows significant increases** (Img. 10).

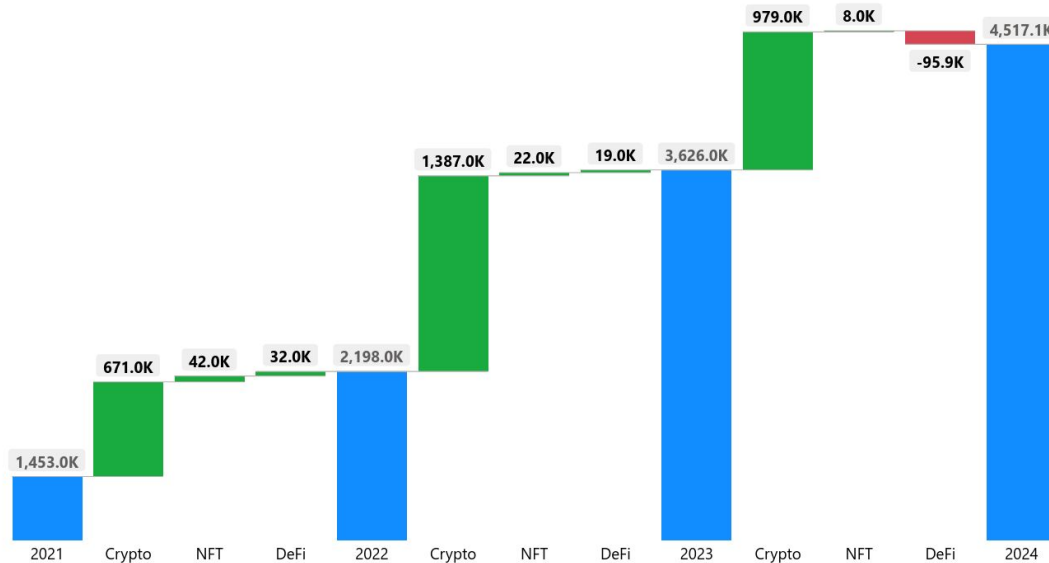


Img.13. Revenue generated per Ukraine User during 2021 - 2024

Statistical Data from the 3rd Party Service

The number of **Ukraine Users** across sectors has shown **consistent growth** from 2021 to 2024 (Img.11)

● Increase ● Decrease ● Total



Img.14. Ukrainian User Count from 2021 to 2024

Conclusions



Conclusions - Financial Indicators

- To calculate the taxes that could potentially be collected from CEXs, web traffic was analyzed, and cash turnover was calculated for **15 global and 6 Ukrainian exchanges**:
 - **The estimated profit** earned by the analyzed exchanges from Ukrainian users from 2021 to 2024 amounts to €46.35 billion.
 - **The estimated amount of potential taxes** that could be collected from CEXs over this period is €8.34 billion.

Conclusions - Financial Indicators

- To estimate the potential taxes that could be collected from CEX users in Ukraine, we analyzed the most well-known global CEX:
 - By applying a 5% tax rate and assuming a minimum profitability rate of 10%, we calculated an amount of €1.31 billion for 2024 from just one CEX.
- Ukraine contributes approximately ~0.94% to global mining, generating €4.68 billion in revenue from 2021 to 2024.
- In 2021, 682,224 crypto wallets were downloaded in Ukraine, and by May 2024, an additional 219,378 wallets had been downloaded.

Conclusions - Key Thesis

- Despite the war and the general economic downturn in the country, we are seeing **significant growth in cryptocurrency** usage among the Ukrainian audience.
- An analysis of the **available data** revealed **substantial amounts of potential tax** revenue that the state budget has missed out on from the cryptocurrency sector.
- The calculated potential tax amounts **are not static**. Given the overall **trend of rising** cryptocurrency prices and increasing usage among the Ukrainian audience, the amount of potential **tax revenue** is also expected to **grow**.

Ways to Expand the Scope of Research

- Increase in the number of CEXs.
- Increase in the number of blockchains.
- Expansion of sectors and entities for analysis. According to global licensing practices for VASPs/DASPs, taxable entities may include more than just CEXs. For example, payment processors—services that individuals or organizations can integrate to handle cryptocurrency payments—can also be considered. The list of sectors and entities for additional analysis requires prior clarification and approval.

Appendices



Appendices

1. High-Quality Images Featured in the Presentation
 - 1.1. [Img 1. Estimated Tax Amount and Remaining Amount of CEX's Profit from Ukrainian Audience](#)
 - 1.2. [Img. 2-1 Web-traffic comparing of Global & Ukraine users from 2021 to 2022](#)
 - 1.3. [Img. 2-2 Web-traffic comparing of Global & Ukraine users from 2021 to 2022](#)
 - 1.4. [Img. 3-1 Web-traffic comparing of Global & Ukraine users from 2023 to 2024](#)
 - 1.5. [Img. 3-2 Web-traffic comparing of Global & Ukraine users from 2023 to 2024](#)
 - 1.6. [Img 4. Volumes comparing of the Ukraine Founded and Worldwide Exchanges across 2021 and 2024 years](#)
 - 1.7. [Img 5. Volume of the most popular Coins and Tokens used within CEX's from 2021 to 2024](#)
 - 1.8. [Img 6. CEX Profits from Ukraine Audience across period from 2021 to 2024](#)
 - 1.9. [Img 7. Tax and Remaining Amounts Generated from the Ukrainian Audience in Centralized Exchanges \(CEXs\)](#)

Appendices

1. High-Quality Images Featured in the Presentation
 - 1.10. [Img. 8 Profit and Tax UA vs Worldwide](#)
 - 1.11. [Img 9. Revenue generated by the Ukraine from 2021 to 2024](#)
 - 1.12. [Img.10 UA Rev per User](#)
2. [Initial Calculations made within Analysis](#)