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TLDR: 5-point Summary

- ARB liquidity on CEX has plummeted, with even \$2 million causing potential price impact of 20%
- ARB onchain liquidity is greatly improved in the aggregate and even better than CEX, primarily due to cross chain liquidity solutions. At the same time, ARB liquidity in individual DEX's is highly variable depending on the day
- The highest volumes of ARB was traded at approximately \$1.9.
- At \$0.6 per ARB, 89% of ARB addresses are at a loss. At \$1.35, around 50% of addresses are breakeven or in profit, serving as a sentiment turnaround point.
- Although price has reduced since September 2023, the market cap has grown suggesting a resilient and positive outlook for ARB in the long term

Liquidity Analysis

CEX Liquidity Analysis

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Fig1:Orderbook Depth

1910x750 30 KB

](<https://global.discourse-cdn.com/flex029/uploads/arbitrum1/original/2X/a/a3bd27355e20b111c9e04691c626acc4be9eb303.png>)

Recent analyses indicate a significant decline in CEX order book depth, decreasing by approximately 50–80% from earlier estimates.

As of September 25, 2024

, a liquidation of merely \$2 million on centralized exchanges (CEXs) can now result in a price impact exceeding 20% as seen in Fig1. In contrast our earlier analysis found the same amount led to only 2% slippage.

[Arbitrum Treasury and Sustainability - Working Group](#)

Order-book depth

: Current bid levels suggest that selling \$1.5-2 million worth of the ARB which accounts for 15-20% of cumulative open bids is likely to keep slippage within a limit of 2%.

When ARB was close to its peak price, the liquidity had surged to \$13.5 million as mentioned in [@karpatkey](#) report

[Arbitrum Treasury and Sustainability Research](#)

The current market can absorb approximately \$13.5 million in ARB sales daily with a 2% price impact, considering the combined liquidity from both on-chain and off-chain trusted sources.

While order books on CEXs limit price impact to 2% at a depth of \$1 million, liquidity sharply declines once orders exceed the \$1.5 million threshold. This decline suggests that Arbitrum

markets are currently facing significant challenges across centralized exchanges.

On-Chain Liquidity Analysis

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Fig2:Paraswap

709x781 72.1 KB

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Conversely, liquidity on decentralized exchanges (DEXs) has shown significant improvement and has surpassed that of centralized exchanges. This enhancement is attributed to multiple initiatives undertaken by Arbitrum to bolster decentralized finance (DeFi) liquidity and the implementation of cross-chain liquidity solutions.

DEX aggregators are capable of providing up to 3.2 times

the liquidity of CEXs as illustrated in Fig2. For larger order sizes ranging from \$10 million to \$20 million

, DEXs demonstrate even greater capability, maintaining a price impact of approximately -20% for a \$16 million liquidation. Notably, there is no significant liquidity cliff; the price impact increases by about 10% per \$10 million increment up to \$90 million, where the price impact plateaus at 90% with further impact being incremental.

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Fig3:Uniswap Depth

900×970 99.3 KB

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However, individual DEXs outside the aggregate ecosystem still exhibit poor liquidity as seen in Fig3. Even a \$50,000 buy order

on Uniswap can move the price by 2%

, indicating that the lack of cross-chain liquidity remains a pervasive issue affecting the entire DEX ecosystem.

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Fig4:Uniswap Variance

749×850 21.3 KB

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Similar to [@Aera](#) finding we discover that there is significant variability in the liquidity. On some days the depth on Uniswap can reach \$300k and still stay within a 2% price impact as shown in Fig4.

[Arbitrum Treasury Management Report by Aera](#)

In September 2023, a swap as small as 113k ARB could have moved the price down by more than 2%, whereas a month later, you could have sold 1M ARB and not moved the market nearly as much. Not only do liquidity conditions vary month to month, but they vary day to day. If ARB recipients are unaware that these differences can exist, they could very easily sell when the liquidity conditions are poor and not only achieve a worse outcome for themselves, but also for other ARB holders.

Stakeholder Analysis

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Fig5: Volume & Price

940×553 65.3 KB

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The majority of ARB

volume traded was at approximately \$1.90

, indicating that a substantial portion have a relatively high entry price. The one-year Volume Weighted Average Price (VWAP)

of approximately \$1.425

suggests that most ARB has been bought at a price 50%

higher than current market levels.

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Fig6: Address-Profitability

2298x554 80.7 KB

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At price levels under \$0.60, approximately 89%

of ARB addresses are out of the money. While the price decrease is primarily driven by token unlocks, there is a need to attract capital inflows at current price levels.

As seen in Fig6 price levels above \$1.35

—where over 50%

of addresses are at or in the money —could serve as a turning point in price sentiment for the ecosystem at large. At these levels, the majority of those who are out of the money face losses within 30%

, as opposed to the 60–70%

decline at current price levels.

Net Growth in Market Capitalization

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Fig7: Market Capitalization

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- Last Years Market Cap (September 25, 2023):

\$1,029,069,885.73

- Current Market Cap (September 22, 2024):

\$2,172,337,433.11

- Overall Growth:

The market capitalization has increased by approximately 111.10%

over the observed period.

Analysis of Net Market Cap Growth Despite Volatility and Severe Price Corrections

Early Stability (Late 2023):

- The period begins with a relatively low market capitalization of around \$1 billion

.

- Steady and gradual growth is observed during this time.

Strong Bullish Momentum (Early 2024):

- A clear uptrend forms in early 2024 with significant growth in market capitalization.
- By late February and early March, the market cap surpasses the \$3 billion

mark during the recent bull run.

Extreme Volatility (March 2024):

- A sharp spike occurs around March 2024

drive by unlocks, with the market cap surging to over \$4.5 billion

- This rise is followed by a dramatic correction, dropping to approximately \$2.74 billion

in April. Despite the correction, the market cap remains higher than initial levels in late 2023, indicating net growth even after the downturn.

Continued Volatility with Growth (Mid-2024):

- Post-March correction, the market experiences another volatile phase, fluctuating between \$2 billion and \$3 billion

, reaching a low of \$1.61 billion

in early August.

- High volatility is attributed to broader market corrections, external pressures, and liquidity issues driven by token unlocks. Nevertheless, the market cap holds above previous levels, maintaining a higher net value than the prior year.

Stabilization and Resurgence (Late 2024):

- By September 2024

, the market cap recovers from summer lows, staying above \$2 billion

- Although it does not return to early 2024 highs, the market cap shows net growth compared to September 2023

levels, indicating a positive long-term upward trend.

Overall when we compare ARB's liquidity to its marketcap, we agree with the conclusion of [@chaoslabs](#)

[Treasury Backed Vaults Risk Analysis](#)

ARB's on-chain liquidity is relatively low when compared to its market capitalization

To conclude, the Arbitrum ecosystem is currently grappling with significant liquidity challenges on centralized exchanges, while decentralized platforms show promising improvements due to strategic initiatives although there is wide variability in liquidity across different days. Stakeholder sentiment has declined due to a majority being out of the money, highlighting the need for price stabilization strategies. Despite market volatility and severe price corrections, the asset has demonstrated net growth in market capitalization over the observed period, suggesting a resilient and positive long-term outlook.

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