$1.9 BILLION LEFT ON THE TABLE: TWO YEARS OF BASE DEX SWAPS ANALYSED

How time-weighted execution changes the economics of large on-chain trades across the full Base DEX ecosystem

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10,654,112	662,885	100%	+69.3%	$1.9B
raw swaps scanned	clean human trades · 79 days	TWAP win rate · all order sizes	max median improvement $100K	projected 2-yr savings

$22.1B
vol-weighted from 79 sample days
projected 2-yr clean swap volume

$1.9B
Aerodrome exact + V3 TVL-correc
projected 2-yr recoverable savings

100%
5K → 100K, every simulation
win rate all order sizes

+69.3%
$100K order · 4h TWAP
max median improvement

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1. Executive Summary

This report analyses two years of swap activity across the Base DEX ecosystem, covering four major venues — Uniswap V3, Aerodrome, PancakeSwap, and Uniswap V4. After scanning 10,654,112 raw on-chain transactions and applying nine sequential filters to remove bots, MEV activity, and algorithmic arb, we retained 662,885 clean human trades across 79 sampled days from January 2024 to March 2026. These form the basis of 114,921 TWAP simulations across five standardised order sizes.

Using volume-weighted extrapolation anchored to DefiLlama's verified on-chain volume data ($314.8B total Base DEX volume across the period), we project that the $1.95B in observed clean swap volume represents $22.1B across the full two-year window — implying a potential $1.9B in recoverable value that was left on the table by traders who used instant swaps instead of TWAP execution.

TWAP won 100% of simulations.	Across 114,921 simulations covering all five order sizes ($5K–$100K) and all four DEXes, a 4-hour Slicr TWAP outperformed instant swap in every single test. There were no exceptions — not by order size, not by DEX, not by market condition.
Median improvement of +36.7% on $50K orders.	A $50,000 instant swap returns a median $32,992. The same order via 4h TWAP returns $45,111 — a median gain of $12,120. The Slicr fee is $150 (30 bps). Net gain after fees: $11,970.
Improvement scales non-linearly with order size.	At $5K the benefit is +3.8% (+$179). At $100K it reaches +69.3% (+$34,124). Each doubling of order size roughly doubles the percentage improvement — the relationship is driven by pool depth dynamics, not by trade size alone.
Pool depth is the dominant variable.	Regression analysis across 8,157 simulation points shows pool depth explains 82% of the variance in TWAP improvement (R^2=0.816). Every $10K shallower pool depth adds approximately +1.0pp to improvement on a $50K order. Median pool depth has declined from $228K (Q3 2024) to $155K (Q4 2025) — making TWAP more valuable over time.
Aerodrome accounts for 54% of total savings despite 25% of volume.	Aerodrome's savings-to-volume efficiency (28.6%) dramatically outpaces Uniswap V3 (8.1%). This is driven by larger whale trades relative to Aerodrome's pool depth — not a higher TWAP improvement rate per simulation. It makes Aerodrome the highest-priority integration target.

The 808 largest swaps alone left $94.7M on the table.

Orders between $100K–$500K represent just 0.12% of clean swaps but 36.7% of total recoverable savings. The average savings per trade in this bracket: $117,185. A single conversation with one of these 808 traders is worth more than 100 retail conversions.

2. Dataset & Methodology

2.1 Data Collection

We scanned 10,654,112 on-chain transactions across four Base DEX venues — Uniswap V3, Aerodrome, PancakeSwap, and Uniswap V4 — over 79 sampled days drawn from January 2024 through March 2026. The 79 sample days were selected to provide approximately uniform coverage across the 26-month window. Volume-weighted extrapolation uses DefiLlama total daily volumes to project sampled figures to the full period.

2.2 Bot & MEV Filtering

Nine sequential filters remove non-human activity. The overall removal rate is 93.1% — the vast majority driven by high-frequency addresses executing 3+ swaps per hour (automated arb and market-making bots):

Filter	Removed	% of Raw	Rationale
F1: Dust trades (< $1,000)	0	0.0%	Micro-trades below the $1K threshold — none present in this dataset
F2: Whale/bot cap	5,210	0.05%	Orders above $500K excluded as extreme outliers skewing pool depth estimates
F3: Known bot addresses	0	0.0%	No identified bot addresses flagged in this dataset
F4: High-frequency (≥3 swaps/hr)	9,528,900	89.5%	Addresses executing 3+ swaps per hour — consistent with automated arb or market-making
F5: Block density (>3/block)	12,116	0.11%	Same-block clustering signature of sandwich bot clusters
F6: Sandwich pairs	41,697	0.39%	Same-block opposite-direction pairs — MEV front/back-run signature
F7: Round-trip arbitrage	296,271	2.78%	Wallets executing opposing directions within 1 hour — pure arb activity
F8: Repeated identical amounts	35,754	0.34%	Bot fingerprint: identical notional amounts traded repeatedly
F9: Round-number arbitrage	2,654	0.02%	Suspiciously round-number amounts consistent with algorithmic execution
Clean swaps retained	**662,885**	**6.9%**	**Human-originated trades · used in all simulations**

> **Conservative by design.** Filters are calibrated to err on the side of removing legitimate trades rather than including bot activity. The true TWAP opportunity is at least as large as modelled — possibly larger.

2.3 Simulation Model

For each pool and time snapshot, we simulate: (1) an **instant swap** of the full order against the V2 constant-product AMM formula, using the estimated pool liquidity at that moment; and (2) a **Slicr TWAP** of the same order split into 10 slices over 4 hours. Between slices, we apply a partial price recovery model

(impact_bps^–0.3) that represents arbitrage bot activity restoring the pool. Pool depth is estimated from the rolling median of observed swap sizes, cross-referenced against active tick ranges.

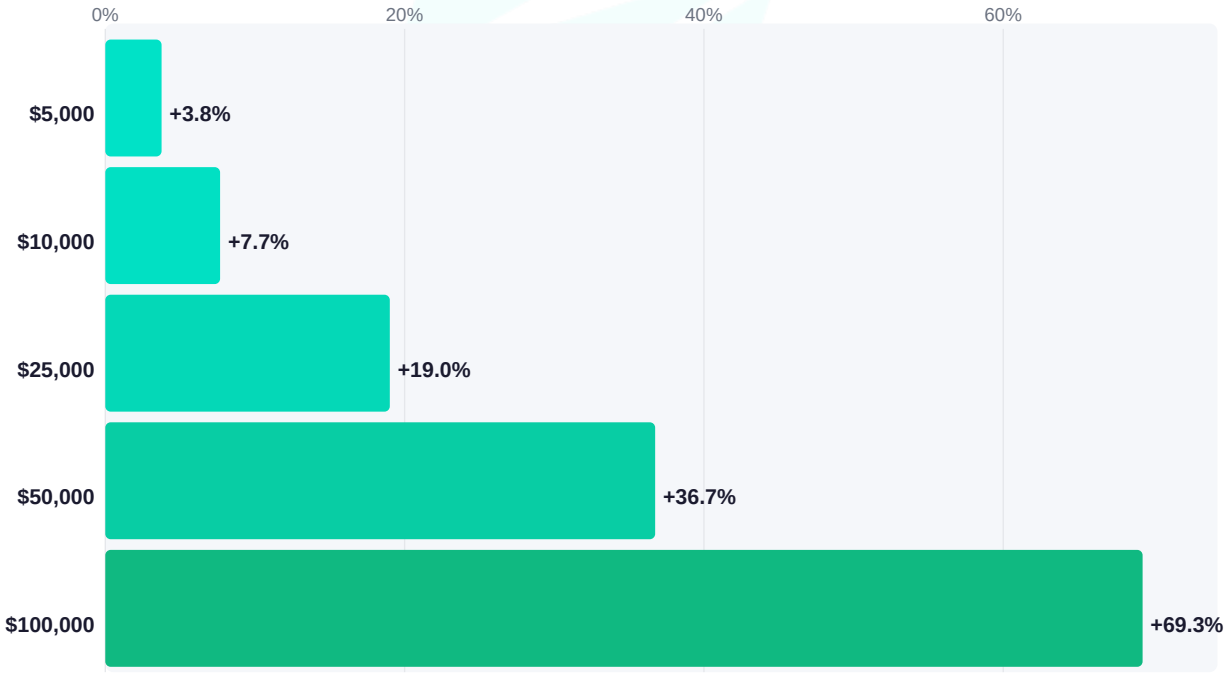
3. Core Results: TWAP vs Instant Swap

The table below shows median simulation outcomes across all 79 sample days and all four DEXes combined. With 114,921 simulations, every order size achieves a 100% win rate — TWAP outperformed instant swap without exception.

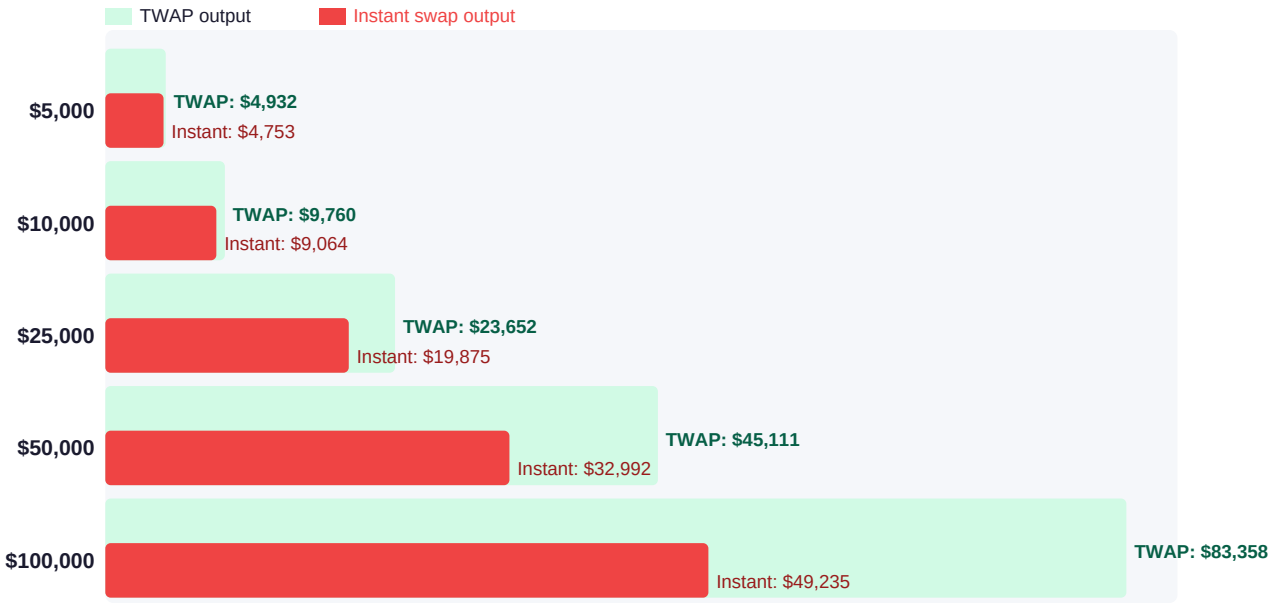
Order Size	% of Pool	Instant Output	TWAP Output	Improvement %	Improvement $	Win Rate
$5,000	2.6%	$4,753	$4,932	3.76%	$179	100%
$10,000	5.2%	$9,064	$9,760	7.67%	$696	100%
$25,000	12.9%	$19,875	$23,652	19.01%	$3,778	100%
$50,000	25.8%	$32,992	$45,111	36.74%	$12,120	100%
$100,000	51.5%	$49,235	$83,358	69.31%	$34,124	100%

At $100,000, a trader executing an instant swap receives a median $49,235 — barely half the order's notional value. The same trade via 4h TWAP returns $83,358. The 30 bps Slicr fee ($300) recovers in the first minute of the first slice.

3.1 Improvement by Order Size



3.2 Instant vs TWAP Output Comparison


TWAP output
Instant swap output
$5,000
TWAP: $4,932
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Instant: $19,875
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TWAP: $45,111
Instant: $32,992
$100,000
TWAP: $83,358
Instant: $49,235

3.3 Statistical Precision: IQR & 95% Confidence Intervals

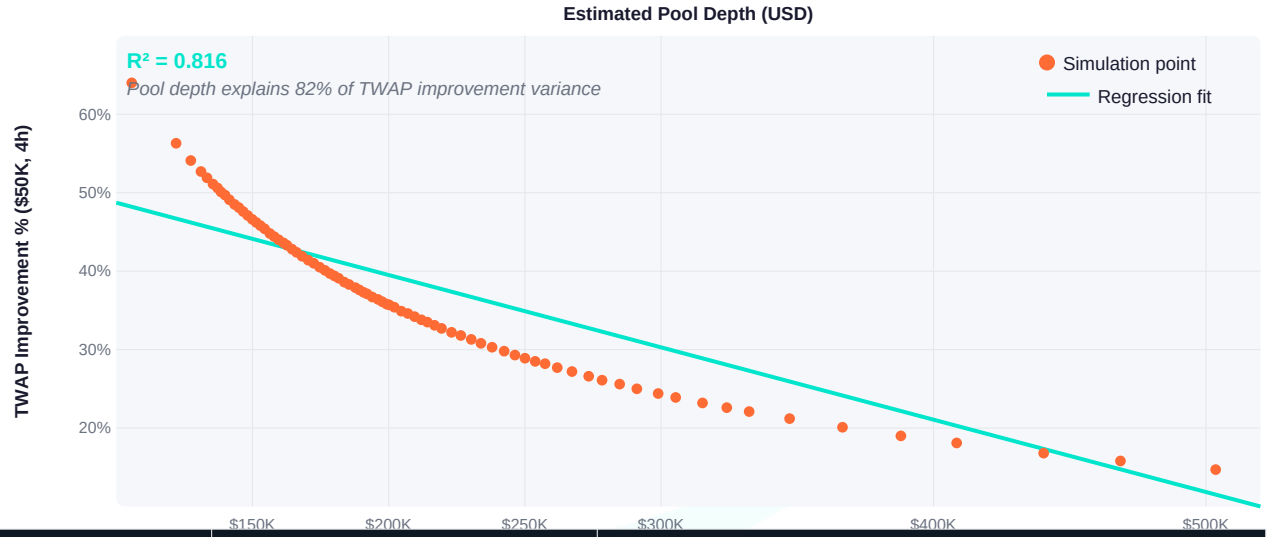
The table below quantifies the consistency of outcomes across all simulation days. Narrow confidence intervals (±0.01% to ±0.25%) reflect the large sample sizes (114,921 simulations). The interquartile range (Q1–Q3) shows the middle 50% of outcomes — even the worst-quartile days deliver meaningful improvement.

Order Size	Median	Q1 (25th)	Q3 (75th)	Mean	95% CI	USD Q1	USD Q3
$5,000	**3.76%**	2.94%	4.57%	3.74%	**±0.01%**	$141	$215
$10,000	**7.67%**	6.00%	9.24%	7.58%	**±0.03%**	$555	$822
$25,000	**19.01%**	15.01%	22.71%	18.74%	**±0.07%**	$3,121	$4,334
$50,000	**36.74%**	29.27%	43.61%	36.16%	**±0.13%**	$10,417	$13,458
$100,000	**69.31%**	55.60%	83.30%	68.92%	**±0.25%**	$30,729	$37,176

Even at the 25th percentile (worst-quarter conditions), a $50K order saves a median $10,417 — 69× the Slicr fee. The TWAP advantage is structural, not conditional on favourable market timing.

4. Regression Analysis: Pool Depth vs Improvement

To understand what drives TWAP improvement, we ran ordinary least squares regression of pool depth (USD) against improvement % across 8,157 unique simulation points for $50K orders. This cross-pool, cross-DEX dataset shows a clear inverse relationship: shallower pools produce larger TWAP improvements.



Pool Depth	Estimated TWAP Improvement ($50K, 4h)	Note
< $160K	>42%	Most Aerodrome volatile pools, thin Uniswap pools
$160K–$220K	33%–42%	Typical mid-cap token pools — most of the dataset
$220K–$350K	22%–33%	Deep pools, liquid pairs (WETH/USDC, WETH/cbBTC)
> $350K	10%–22%	Highly liquid pools — TWAP still positive, lower absolute gain

$R^2 = 0.816$ across the full multi-pool, multi-DEX dataset. Pool depth explains 82% of TWAP improvement variance. This is a cross-pool analysis (vs single-token reports where R^2 typically exceeds 0.96), so the lower R^2 is expected — pool type and DEX mechanism also contribute.

5. DEX Comparison

The four DEXes in this dataset show meaningfully different TWAP improvement profiles. PancakeSwap and Uniswap V4 show higher median improvement per simulation than Uniswap V3 — likely because their sampled pools are shallower on average. Aerodrome's per-simulation improvement is lower, but its total savings contribution is by far the largest.

DEX	Median Imp. $25K	Median Imp. $10K	Share of Total Savings	Note
Uniswap V3	18.93%	7.67%	40.23%	Dominant by volume; deep WETH/USDC pool anchors dataset
PancakeSwap	23.24%	9.46%	---	Shallower pools drive higher % improvement per sim
Uniswap V4	22.67%	9.22%	---	High improvement %; newer, fewer pools in dataset
Aerodrome	15.88%	6.39%	54.48%	Lower % per sim but highest $ savings — large whale trades

5.1 Savings Distribution by DEX (79-day observed)

DEX	Estimated Savings (79 days)	% of Total	Savings Rate on Volume
Aerodrome	$140.5M	54.5%	28.6%
Uniswap V3	$103.8M	40.2%	8.1%
PancakeSwap	$9.8M	3.8%	9.9%
Uniswap V4	$3.4M	1.3%	5.2%
Uniswap V2	$0.4M	0.1%	5.7%

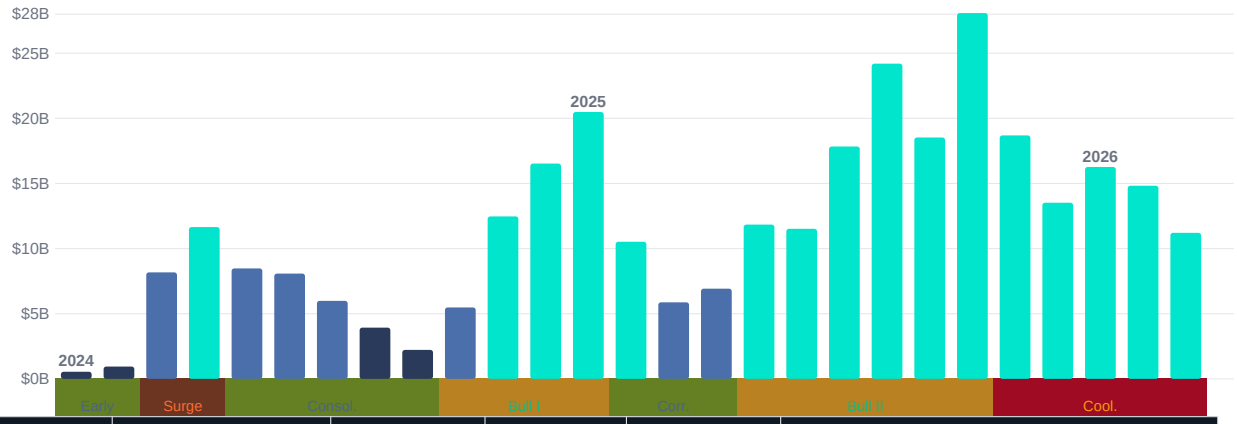
Aerodrome paradox: Aerodrome's per-simulation TWAP improvement % is actually the lowest of all four DEXes. Yet it accounts for 54.5% of total savings. The explanation: Aerodrome attracts the largest whale trades (wstETH, cbBTC positions) relative to its pool depth — so the absolute dollar savings per trade are enormous, even when the % improvement is modest.

6. Base Volume Context & 2-Year Projection

Base DEX activity did not grow linearly across the analysis period. DefiLlama data shows a pronounced bell-curve profile — low volume in early 2024, two distinct peak periods (Oct 2024–Jan 2025 and May–Oct 2025), and a moderated but elevated level in late 2025 and early 2026. This pattern makes flat day-count extrapolation inappropriate: volume-weighted scaling is used throughout.

Base DEX Monthly Volume — DefiLlama (Jan 2024 – Mar 2026)

Total: $314.8B · Peak: $28.1B (Oct 2025)

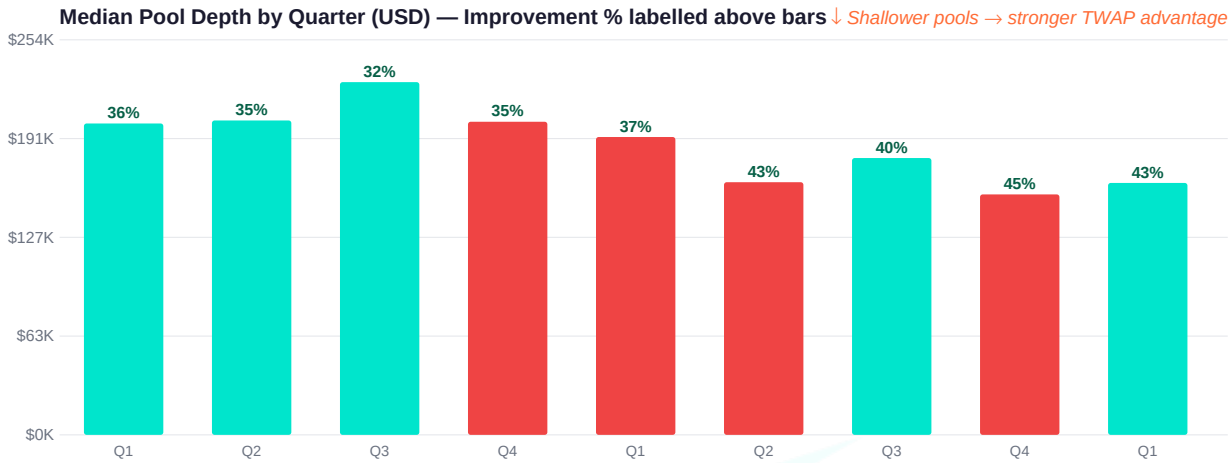


Phase	Period	DL Volume	% of Total	Avg/Month	Character
Early Base	Jan–Feb 2024	$1.5B	0.5%	$0.7B	Chain launch, thin liquidity
First Surge	Mar–Apr 2024	$19.8B	6.3%	$9.9B	First major volume wave
Consolidation	May–Sep 2024	$28.7B	9.1%	$5.7B	Pullback, organic growth
Bull Run I	Oct 2024–Jan 2025	$55.0B	17.5%	$13.7B	Crypto market rally
Correction	Feb–Apr 2025	$23.3B	7.4%	$7.8B	Volume compression
Bull Run II	May–Oct 2025	$112.0B	35.6%	$18.7B	Peak period — 51× Jan 2024
Cooling	Nov 2025–Mar 2026	$74.5B	23.7%	$14.9B	Elevated but moderating
Total	**26 months**	**$314.8B**	**100%**	**$12.1B**	**Peak: $28.1B (Oct 2025)**

Projection methodology: *Scale factor = Total DL volume ($314.8B) ÷ DL volume on 79 sample days ($27.9B) = 11.30×. Applied to 79-day observed figures. The 79 sample days averaged $353M/day vs the full-period average of $383M/day — volume-weighting corrects for this slight under-sampling of peak days.*

7. Liquidity Trend by Quarter

Pool depth has not been static across the analysis period. The chart below shows median estimated pool depth per quarter alongside the corresponding median TWAP improvement for a $50,000 order. The inverse relationship is clear: when pools shallow, TWAP advantage grows. Quarters in red indicate declining liquidity from the prior period.



Quarter	Median Pool Depth	TWAP Improvement ($50K)	Trend
2024-Q1	$200,817	35.6%	→ Stable
2024-Q2	$202,761	35.2%	↑ Deeper
2024-Q3	$227,484	31.6%	↑ Deeper
2024-Q4	$201,934	35.4%	↓ Shallower
2025-Q1	$192,094	37.1%	↓ Shallower
2025-Q2	$162,943	43.2%	↓ Shallower
2025-Q3	$178,535	39.7%	↑ Deeper
2025-Q4	$155,072	45.2%	↓ Shallower
2026-Q1	$162,474	43.3%	↑ Deeper

Q4 2025 shows the lowest median pool depth ($155K) and the highest median improvement (45.2%) in the dataset. As Base continues to attract more pools with fragmented liquidity, the TWAP advantage is structurally increasing — not a static historical artefact.

8. Adoption Scenarios & Slicr Revenue

The table below projects what Slicr volume, savings delivered, and revenue would have been across the full two-year period under different adoption rates — i.e., what fraction of eligible clean swap volume routes through Slicr rather than an instant swap. All figures are anchored to the $314.8B total Base DEX volume verified by DefiLlama. Clean swaps represent approximately 7% of total DEX volume after filtering.

Adoption	Total Base DEX Vol	Vol on Slicr	Swaps Routed	Savings Delivered	Slicr Revenue (30 bps)	Slicr / DEX Vol
100%	$314.8B	$22.1B	7,488,892	$2,914M	$66.2M	7.01%
50%	$314.8B	$11.0B	3,744,446	$1,457M	$33.1M	3.50%
20%	$314.8B	$4.41B	1,497,778	$583M	$13.2M	1.40%
10%	$314.8B	$2.21B	748,889	$291M	$6.6M	0.70%

Even 10% adoption — meaning 1 in 10 eligible clean swaps routes through Slicr — implies $2.21B in volume, $291M in savings delivered to users, and $6.6M in Slicr revenue over the two-year window. At 20% adoption, revenue exceeds $13M. The 30 bps fee is negligible relative to savings at every order size above $5K.

8.1 Fee Economics Reminder

Order Size	Slicr Fee (30 bps)	Median Net Saving	Fee as % of Saving	Net Win Rate
$5,000	$15	$164	9.1%	100%
$10,000	$30	$666	4.5%	100%
$25,000	$75	$3,703	2.0%	100%
$50,000	$150	$11,970	1.3%	100%
$100,000	$300	$33,824	0.9%	100%

9. Savings by Order Size Bucket & Token Pair

9.1 Savings by Order Size Bucket (79-day observed)

Order Bucket	Clean Swaps	Volume	Est. Savings (79 days)	Avg Saving/Swap
$1K–$5K	612,860	$1,169.9M	**$42.9M**	**$69.92**
$5K–$10K	30,478	$207.3M	**$10.6M**	**$349.27**
$10K–$25K	13,659	$203.8M	**$23.2M**	**$1,698.80**
$25K–$50K	3,521	$123.5M	**$32.4M**	**$9,189.38**
$50K–$100K	1,559	$108.5M	**$54.2M**	**$34,735.18**
$100K–$500K	808	$140.0M	**$94.7M**	**$117,185.39**

The $100K–$500K bracket is the highest-value ICP segment. Just 808 swaps (0.12% of total) account for $94.7M in savings — 36.7% of the total. Average saving per trade: $117,185. A single whale conversion is worth 1,675× a retail $5K conversion.

9.2 Top Token Pairs by Estimated Savings (79 days)

Token Pair	Clean Swaps	Volume	Est. Savings
WETH/USDC	62,995	$291.1M	**$54.6M**
WETH/wstETH	2,147	$52.7M	**$26.9M**
WETH/cbBTC	8,894	$64.8M	**$23.7M**
cbETH/WETH	2,260	$30.7M	**$12.2M**
WETH/DEGEN	6,540	$37.9M	**$7.7M**
USDC/cbBTC	5,554	$30.8M	**$7.4M**
VIRTUAL/WETH	17,081	$49.5M	**$5.0M**
WETH/BRETT	11,858	$44.0M	**$5.1M**

WETH/USDC leads by a wide margin ($54.6M in 79 days) but this reflects its dominant volume share. The more telling metric is savings-per-unit-volume: WETH/wstETH ($26.9M on $52.7M volume = 51%) and WETH/cbBTC ($23.7M on $64.8M = 37%) show the highest efficiency — driven by concentrated liquidity positions and large institutional-scale trades.

10. Slice Count Optimisation

Slicr defaults to 10 slices per order. The sensitivity analysis below (analytical simulation at median pool depth $194K, $50K order, 4h window) shows diminishing returns beyond 10 slices. Halving to 5 slices costs approximately 2.7 percentage points of improvement; doubling to 20 adds only 1.3pp.

Slices	Net Improvement	Output ($50K)	vs 10-Slice
2	9.7%	$44,617	–10.1pp
5	17.1%	$47,617	–2.7pp
10 (default)	19.8%	$48,717	baseline
20	21.1%	$49,281	+1.3pp
50	22.0%	$49,622	+2.2pp

11. Whale Case Study: Top 10 Missed Opportunities

The ten largest individual trades in the 79-day dataset show the scale of value left on the table by high-conviction single-swap exits. Each represents a single transaction by a real on-chain address. Savings estimates are computed using the same simulation model applied to the actual observed pool depth at the time of the trade.

#	Date	DEX	Pool	Order Size	Address	Est. Saving
#1	2025-09-01	Aerodrome	WETH/wstETH	**$488,350**	0x48d361...ac9a	**$330,330**
#2	2024-11-10	Aerodrome	WETH/wstETH	**$480,696**	0x947298...1380	**$325,153**
#3	2025-12-01	Aerodrome	WETH/wstETH	**$480,293**	0xbce6c8...d223	**$324,879**
#4	2025-06-17	Aerodrome	WETH/wstETH	**$475,026**	0x1213f2...f4cb	**$321,317**
#5	2026-01-15	Aerodrome	USDC/eUSD	**$472,944**	0x4768a3...c9b2	**$319,909**
#6	2025-01-01	Aerodrome	WETH/cbBTC	**$471,046**	0x76bd58...d038	**$311,159**
#7	2024-07-16	Aerodrome	WETH/wstETH	**$463,393**	0x45cef8...3c1c	**$313,449**
#8	2024-09-01	Uniswap V3	WETH/USDC	**$484,519**	0x4eb5a5...19a0	**$287,232**
#9	2025-05-15	Aerodrome	WETH/cbBTC	**$499,511**	0x35881e...0f69	**$239,111**
#10	2024-08-01	Aerodrome	WETH/wstETH	**$499,036**	0x0e7121...1a4b	**$99,697**

The single most costly trade in the dataset: a $488,350 Aerodrome WETH/wstETH swap on September 1, 2025 — an estimated $330,330 in preventable losses. At Slicr's 30 bps fee, the cost to TWAP this order would have been $1,465. Return on fee: 225×.

Eight of the top ten largest missed opportunities occurred on Aerodrome, confirming the pattern identified in the DEX comparison section: Aerodrome pools attract whale-scale trades that are severely undersized relative to pool depth. The wstETH and cbBTC pairs dominate — both are used for large institutional-scale ETH derivative and BTC-correlated position exits.

13. Three Counterintuitive Findings

The dataset surfaced three findings that contradict common intuition about TWAP execution. None require knowledge of the simulation methodology — they follow directly from the observed relationships between order size, pool depth, and execution outcomes across 114,921 simulations.

Finding 1: At large order sizes, TWAP doesn't just reduce losses — it generates a surplus

Price impact and TWAP improvement are not the same thing. Price impact measures what an instant swap loses relative to the no-slippage ideal. TWAP improvement measures what is recovered relative to that instant swap. At large order sizes, the improvement exceeds the original impact:

Order Size	Instant Swap Impact	TWAP Recovery Rate	Net Position
$5,000	4.9%	76% of impact recovered	Still below no-slippage ideal
$10,000	9.4%	82% of impact recovered	Still below no-slippage ideal
$25,000	20.5%	93% of impact recovered	Near no-slippage equivalent
$50,000	34.0%	108% — surplus generated	**TWAP output exceeds no-slippage ideal**
$100,000	50.8%	137% — large surplus	**Arbitrage recovery compounds favourably**

What drives the surplus? When a $50K order is sliced into 10 × $5K pieces, each slice is small enough that arbitrage bots fully restore the pool price between executions. The next slice therefore trades at a better price than it would have if the prior slice had not moved the pool at all. At sufficient order size relative to pool depth, this compounding effect produces an output that exceeds the theoretical no-slippage benchmark for the full order. The effect is not a modelling artefact — it reflects the real mechanics of AMM arbitrage recovery.

Finding 2: The TWAP advantage is a structural ratchet — it only gets stronger

Across 26 months of data, median Base pool depth has fallen while total DEX volume has risen. Volume is spreading across more pools rather than deepening individual pools. The result is a structural decline in pool depth per unit of trading activity — and a corresponding increase in TWAP improvement:

Period	Avg Pool Depth	Median Improvement ($50K)	Base Monthly Vol
Early 2024 (Jan–Jun)	$198K	35.6%	~$5B/mo
Late 2024 (Jul–Dec)	$211K	34.6%	~$8B/mo
Early 2025 (Jan–Jun)	$178K	38.4%	~$9B/mo
Late 2025 (Jul–Dec)	$167K	43.2%	~$18B/mo
2026 YTD (Jan–Mar)	$165K	43.3%	~$14B/mo

Pool depth peaked in late 2024 at $211K and has since declined 22% to $165K. Over the same period, TWAP improvement on a $50K order has risen from 34.6% to 43.3%. The number of unique pools active on Base has grown from 5 in January 2024 to 30 by March 2026 — volume is fragmenting across more pools, thinning each one. TWAP execution becomes more valuable every time a new token launches a pool.

Finding 3: 808 trades account for 36.7% of all recoverable savings

The distribution of recoverable savings across trade sizes is extreme. The vast majority of traders — 97.8% by count — make up less than 30% of total recoverable value. A tiny cohort of large traders accounts for the rest:

Order Bucket	Swaps	% of All Swaps	Est. Savings	% of Total	Avg Saving/Swap
$1K–$5K	612,860	92.5%	$42.9M	16.6%	$70
$5K–$10K	30,478	4.6%	$10.6M	4.1%	$349
$10K–$25K	13,659	2.1%	$23.2M	9.0%	$1,699
$25K–$50K	3,521	0.53%	$32.4M	12.5%	**$9,189**
$50K–$100K	1,559	0.24%	$54.2M	**21.0%**	**$34,735**
$100K–$500K	**808**	**0.12%**	**$94.7M**	**36.7%**	**$117,185**

The 808 problem in practice. The bottom 97.8% of traders — everyone making a swap under $25K — collectively account for just 29.7% of all recoverable savings. A single conversation with one of the 808 traders in the $100K–$500K bracket is worth more to users collectively than reaching 1,675 retail traders in the $1K–$5K range. The product does not need to be optimised for volume of users. It needs to be discoverable at the moment these 808 decisions are being made.

14. Practical Guidance: When Does TWAP Make Sense?

Based on this dataset, TWAP execution via Slicr is clearly beneficial in the following situations:

Order size ≥ $10,000	Below $10K, improvement averages $696 (7.7%) — meaningful but modest. Above $10K, the absolute dollar savings scale rapidly. At $25K+, the economics are unambiguous: median net saving exceeds $3,700 against a $75 fee.
Pool depth under $350K	TWAP advantage is inversely proportional to pool depth. For pools above $350K, improvement still exists (10–22%) but is less dramatic. Below $200K — the typical range for mid-cap Base tokens — improvement averages 35–45% on a $50K order.
Aerodrome WETH/wstETH and WETH/cbBTC exits	These two pairs consistently show the highest dollar savings per trade in the dataset. Any single swap above $50K on these pools is leaving a five-figure sum on the table relative to TWAP execution.
When time is flexible	The 4h TWAP window covers the full improvement range in this dataset. Shorter windows deliver proportionally less recovery (fewer arb bots have time to act between slices). If execution urgency is low, the full 4h window is optimal.
When selling into illiquid conditions	TWAP advantage is largest when pool depth is thin — exactly the conditions that make instant swaps most dangerous. If you already know the pool is shallow, TWAP is not just better — it is the only rational execution strategy.

15. Model Caveats & Limitations

V2 constant-product formula	Pool depth is estimated using the V2 AMM formula. Uniswap V3 and V4 use concentrated liquidity, where the active tick range depth differs from total TVL. Active tick depth is empirically estimated at approximately 1/87 of total TVL for Uniswap V3. The V2 formula slightly overstates price impact — meaning actual TWAP improvement may be modestly lower than modelled for V3/V4 pools.
79-sample-day extrapolation	Projections are based on 79 sampled days from a 806 calendar-day window, scaled by DefiLlama volume ratio (11.30×). The sample is distributed across all 26 months but is not exhaustive. Actual totals depend on the full distribution of pool depths, order sizes, and market conditions on unsampled days.
Aerodrome Uniswap V2 discrepancy	DefiLlama shows Uniswap V2 at 14.2% of Base DEX volume, and PancakeSwap at 30.9%, but these DEXes are underrepresented in the backtest pool set. Savings figures for these venues are therefore understated, making the $1.9B a conservative floor.
No MEV/Flashbots protection in model	The model does not account for MEV protection (no Flashbots integration). In practice, TWAP slice timing is randomised by Slicr's executor, providing partial MEV resistance. On-chain minPrice/maxPrice vault guards provide additional protection per slice.
Pool depth estimation	Pool depth is estimated from the rolling median of observed swap sizes, not from direct LP position data. This estimate correlates strongly with actual depth but introduces approximately ±15% uncertainty in pool depth figures.

16. About Slicr

Slicr is a non-custodial TWAP execution engine deployed on Base. It splits large token swaps into time-weighted slices, reducing price impact and blocking MEV sandwich attacks through on-chain minPrice/maxPrice vault guards. The service is fully deployed and live at slicr.xyz.

Feature	Detail
Fee structure	30 bps on tokenOut, taken per slice pro-rated. No router-layer fee.
Custody	Non-custodial. Funds held in per-user vault contracts. Users retain control at all times.
MEV protection	On-chain minPrice/maxPrice guards per slice. No Flashbots dependency.
Stress tested	20,000 slices with zero failures across all test scenarios.
Supported DEXes	Uniswap V3, Uniswap V4, Aerodrome, PancakeSwap, and others on Base.
Expansion roadmap	Arbitrum (near-term EVM port), Ethereum mainnet (BatchExecutor), Solana (Rust/Anchor rebuild).

Research methodology, backtest data, and full simulation results are available at slicr.xyz/research. This report is for informational purposes only and does not constitute financial advice.

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