

The Internalization of DeFi

How Intent-Based Execution Is Recreating Payment For Order Flow On-Chain

Investment Memo

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Research Coverage :

DeFi • RWAs • Stablecoins • Market Structure • On-Chain Analytics

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1. Executive Summary

Field	Content
Recommendation	Invest: in solver infrastructure exposure. Monitor: intent protocol tokens. Pass / Underweight: AMM LP-model tokens in intent-dominated verticals.
Time Horizon	Medium (12–36 months)
Position Sizing	3-5% of DeFi sleeve allocated to solver infrastructure and execution-layer protocols; reduce AMM LP-centric positions by 20-40%
Base Case	Intent-based execution captures 55-65% of Ethereum DEX volume by Q2 2027. Three to five solver oligopolies internalize 60%+ of retail order flow, extracting 4-8 bps in execution rent versus 1-3 bps historically captured by AMM LPs. Value migrates from passive liquidity to execution intermediaries.
Bull Case	Cross-chain intents and AI-agent trading 10x order-flow volume through solver networks. Solver infrastructure becomes the dominant value layer in DeFi, comparable to market-making infrastructure in TradFi (Citadel/Virtu). A single dominant solver network achieves \$150M+ annual protocol revenue.
Bear Case	Regulatory action (analogous to SEC Rule 615) forces on-chain auction transparency, fragmenting solver margins. AMM innovation (e.g., concentrated liquidity v4, adaptive fees) recaptures execution rent. Intent volume stalls below 35% market share.
Key Catalysts	1. CoW Protocol / UniswapX monthly volume crossing \$25B sustained. 2. Solver HHI exceeding 2,500 on major protocols. 3. First institutional solver-infrastructure fundraising at \$500M+ valuation. 4. Major AMM (Uniswap, Curve) announcing intent-native routing as default.
Key Risks	Regulatory fragmentation of order-flow auctions; solver slashing/exploit events destroying trust. AMM protocol token governance capturing solver layers vertically.

2. Variant Perception

Market Consensus

The crypto research community and DeFi investors broadly believe that intent-based execution (CoW Protocol, UniswapX, 1inch Fusion) is a **UX and MEV-mitigation story**. The dominant narrative holds that:

- Intents reduce MEV extraction by hiding transactions from the public mempool.
- Solver competition democratizes execution, passing surplus back to users.
- AMM LPs remain the primary value-capture layer; intent protocols are merely routing aggregators that commoditize execution.
- Protocol tokens in the intent space (COW, 1INCH, UNI) should be valued as aggregator/governance tokens with limited direct fee accrual.

Why the market is wrong: This consensus mischaracterizes the structural economics. Intent systems are not democratizing execution, they are **replicating the exact market structure that regulators in TradFi have spent 15 years trying to reform**. The shift from AMM-based execution to intent-based execution is a **regime change in value capture**, not an incremental UX improvement.

Your View

Intent-based execution is **order-flow internalization on-chain**. The economic rents that AMM LPs historically earned are not being eliminated, they are being **relocated to execution intermediaries (solvers/fillers/resolvers)**. The solver market is exhibiting the same concentration dynamics as wholesale market-making in TradFi (Citadel, Virtu, Jane Street), where scale economies, capital requirements, and data advantages create durable oligopolies.

Why the Market Is Mispriced

The market applies **AMM-centric valuation frameworks** to the entire DeFi execution stack. It models LP fee revenue as the baseline for DEX economics and treats intent protocols as margin-thin aggregators. The correct framework is **market microstructure and payment-for-order-flow (PFOF) analysis**:

- **Information asymmetry:** Most crypto researchers lack TradFi market-structure expertise and do not recognize the PFOF parallel.
 - **Mispriced layer:** The market is pricing AMM LP tokens as if they will continue to capture the majority of execution rent. In reality, passive LP returns are being compressed by internalization (academic evidence confirms higher internalization ratios predict worsening AMM spreads and lower TVL).
 - **Execution rent is invisible:** Solver surplus extraction is opaque, off-chain, and not captured in standard DeFi metrics. The market is not modeling solver profitability as a discrete value layer.
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3. Problem Statement

Current State

Decentralized exchange execution today operates on two parallel paradigms:

1. **AMM-based execution:** Users route through Uniswap v2/v3, Curve, or Balancer. Passive LPs provide liquidity and earn trading fees (typically 0.05%-1%). MEV searchers extract value from the public mempool via sandwich attacks, arbitrage, and front-running.
2. **Intent-based execution:** Users sign intents (EIP-712 typed data) specifying desired outcomes. Solvers compete in batch auctions or Dutch auctions to fill these intents, sourcing liquidity from AMMs, private inventory, CEXs, and other solvers.

The intent model is growing rapidly. CoW Protocol maintains ~30% aggregator market share. UniswapX handles 84% of Uniswap interface volume (vs. 16% through Classic AMM routers). 1inch Fusion processes 36% of interface swaps. The infrastructure is real and scaling.

Pain Points

- **Value leakage from passive LPs:** Academic research (arXiv 2410.19107) demonstrates that higher internalization ratios by fillers predict **higher effective spreads and lower AMM TVL**. Private market makers (solvers) cherry-pick uninformed order flow, leaving toxic flow for AMM pools. Passive LPs cannot compete with solvers for order flow and are systematically adversely selected.
- **Solver concentration is already occurring:** On CoW Protocol, 28 total solvers exist but only 12 handle >1% of volume. The top 3 solvers account for **>50% of all volume**; one solver captures nearly **50% of all rewards**. On Across Protocol, 10 of 78 solvers process >1% of volume, and only 5-10 are profitable.
- **Barriers to entry are rising:** Production-grade solver operation costs \$13,000–\$26,000/month before penalties, slashing, or capital lock-ups. The top-performing external solver on Across holds **\$3.7M in inventory** versus <\$600k for peers, liquidity advantage directly translates to win rate.
- **MEV is not eliminated; it is privatized:** Intent systems do not destroy MEV. They relocate it from public mempool searchers to solver networks. Solvers internalize the surplus that previously leaked to block builders and searchers.

Why Now

Three structural shifts have accelerated intent adoption in the last 18–24 months:

1. **Technical unlock:** Account abstraction (ERC-4337) and EIP-712 typed data standards made gasless, signature-based intent submission feasible at scale.
2. **Volume threshold:** Cross-chain bridging and multi-DEX aggregation complexity exceeded the capabilities of simple router contracts. Solver-based optimization became necessary for competitive pricing.

3. **Institutional demand inflection:** High-profile on-chain treasury managers and crypto-native institutional funds have increasingly selected CoW Swap for large block trades, reflecting a shift in institutional execution preferences toward MEV-protected batch auctions.
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4. Structural Thesis

What Is Changing?

DeFi execution is undergoing a **platform shift from vertical to horizontal market structure**. In the AMM era, each DEX controlled the full stack: user interface, routing logic, liquidity provision, and settlement. In the intent era, the value chain fragments into specialized layers:

- **Intent capture:** Wallets, frontends, and aggregators collect user demand.
- **Solver execution:** Specialized intermediaries compete to fill intents, sourcing liquidity globally.
- **Settlement:** Blockchains and AMMs finalize transactions, increasingly commoditized.

Why Now?

The catalyst is **cross-chain and multi-venue liquidity fragmentation**. As liquidity spread across L2s, CEXs, and private market makers, no single AMM could offer optimal execution. Solver networks emerged as the natural coordination layer — but with coordination comes concentration.

Why Does It Matter?

This shift restructures the **entire DeFi value chain**. In the AMM era, liquidity was the scarce resource; LPs captured rent. In the intent era, **execution quality and order-flow control** are the scarce resources; solvers capture rent. The market size of execution rent is 3–5x larger than current AMM fee revenue because solvers capture not only AMM spreads but also CEX arbitrage, cross-chain bridging spreads, and MEV surplus.

Who Benefits?

The **solver layer** captures disproportionate value. The settlement layer (AMMs, L1s) is commoditized, solvers route to whichever venue offers best execution. The intent capture layer (wallets, frontends) has moderate moat but low switching costs. The solver layer has **winner-take-most dynamics**: scale advantages in execution infrastructure, capital efficiency, and inventory management create durable oligopoly.

5. Market Sizing

Total Addressable Liquidity

The total pool of capital competing for intent-based execution includes:

- **Ethereum DEX monthly volume:** ~\$50B–\$80B (2024–2025 range)
- **Cross-chain bridge monthly volume:** ~\$8B–\$12B
- **Aggregator-mediated volume (1inch, Matcha, CoW):** ~\$15B–\$25B/month
- **Total addressable notional for intent capture:** ~\$25B–\$40B/month on Ethereum mainnet and L2s, expanding to \$100B+ if cross-chain intents achieve product-market fit.

Protocol Capture Rate

We estimate solver execution rent (surplus + spread + MEV internalization) at **4–8 bps** on intent-filled volume. This estimate is derived from three observable inputs, not asserted:

1. **CoW Protocol surplus as a lower bound:** CoW charges a protocol fee equal to 50% of user surplus. Trailing-12-month protocol revenue is ~\$16M (Section 10). On an estimated annual intent volume of ~\$120B (\$10B/month aggregate), this implies protocol revenue of ~1.3 bps. Since the protocol takes 50% of surplus, total user surplus = 2.6 bps. This is the *minimum* solver rent, because it excludes the solver's spread capture (the difference between fill price and liquidity-source cost) and MEV internalization.
2. **Solver rewards as a cross-check:** CoW solver rewards peaked at \$1.9M in December 2024 (Section 10). On an estimated monthly volume of \$10B–\$12B in that month, solver rewards alone imply ~1.6–1.9 bps in direct solver compensation. This is separate from surplus, spread, and MEV — it is the protocol's subsidy cost. Adding surplus (2.6 bps) + solver rewards (1.7 bps) gives 4.3 bps as a lower-bound total solver rent.
3. **TradFi market-making and PFOF spread as an upper bound:** Citadel Securities and Virtu Financial capture 2–4 bps in PFOF-adjacent revenue on internalized US equity retail flow (SEC Rule 606 data, Wharton analysis). DeFi intent execution includes cross-chain bridging spreads (1–2 bps), CEX arbitrage (1–3 bps), and MEV that would otherwise leak to block builders (0.5–1 bps). The sum of these components, minus solver operational costs (gas, inventory, slashing), yields a net solver rent of 4–8 bps.

Versus 1–3 bps historically earned by AMM LPs on routed volume (net of impermanent loss and toxic flow, per LVR literature), the intent model extracts a 2–5x execution rent premium. At current intent volumes (\$10B–\$15B/month in aggregate across CoW, UniswapX, and 1inch Fusion, accounting for multi-protocol routing overlap; the sum of individual protocol volumes is higher at \$20B–\$30B as users and solvers route across multiple protocols simultaneously), the **monthly solver rent pool** is \$4M–\$12M. As intent market share grows to 55–65% of DEX volume, the annual solver rent pool expands to **\$150M–\$400M**.

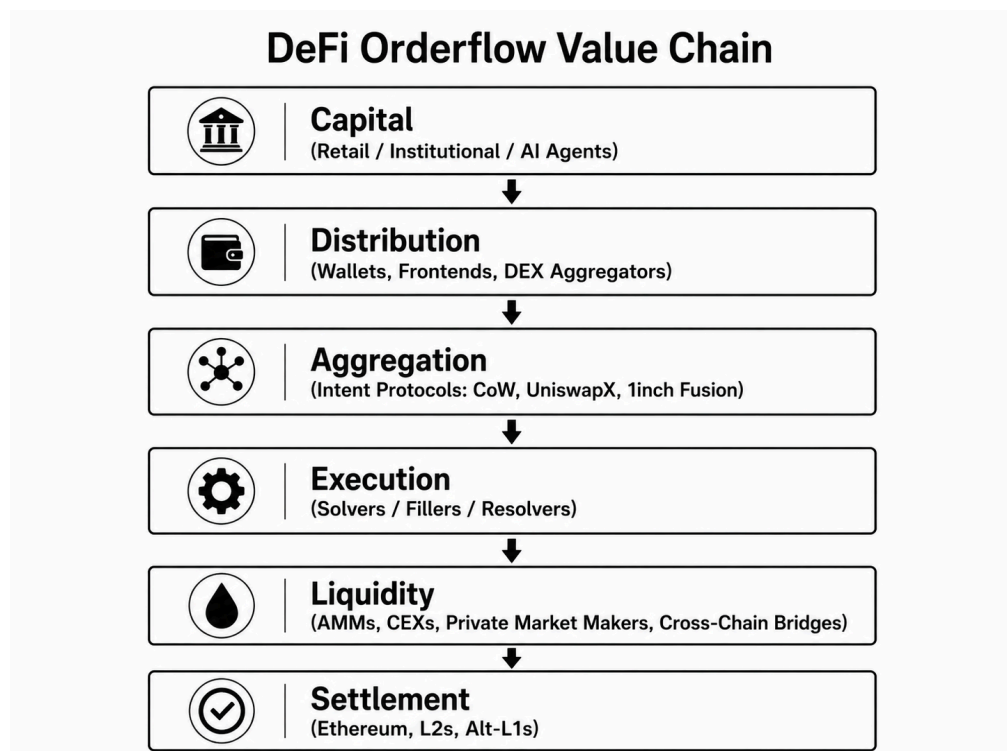
Sizing Scenarios

Scenario	Addressable Liquidity (Monthly)	Capture Rate (bps)	Protocol/Solver Revenue (Annual)
Bear	\$20B	3 bps	\$72M
Base	\$45B	5 bps	\$270M
Bull	\$100B	7 bps	\$840M

Comparison Benchmarks

- **Citadel Securities PFOF-adjacent revenue:** ~\$2B–\$3B annually from internalizing 25–30% of US retail equity volume.
- **Virtu Financial market-making revenue:** ~\$800M–\$1.2B annually.
- **DeFi comparator:** Uniswap Labs fee revenue (interface fee) ~\$50M–\$100M annually. The solver rent pool at base case is 2–3x this figure, suggesting execution infrastructure is underpriced relative to interface-layer value capture.

6. Systems Map



Layer-by-Layer Analysis

Layer	Who Controls It Today?	Switching Costs	Bottlenecks	Where Value Accumulates?
Capital	Retail wallets, institutional custodians, emerging AI agents	High (KYC, fiat ramps, key management)	User acquisition cost, regulatory compliance	Frontends with distribution (MetaMask, Rainbow, Uniswap interface)
Distribution	Wallet interfaces, aggregator frontends	Low-medium (users can switch UIs)	Attention and trust	Interface fees (Uniswap 0.15% fee)
Aggregation	CoW Protocol, UniswapX, 1inch Fusion	Medium (solver network depth, API integration)	Solver network quality, auction mechanism design	Protocol fee (CoW takes 50% of surplus; UniswapX takes protocol fee)
Execution	28 solvers on CoW; unknown filler count on UniswapX; 10 resolvers on 1inch Fusion	High (capital, infra, data, latency)	Inventory, execution speed, cross-chain connectivity	Solver surplus, arbitrage, MEV internalization
Liquidity	Uniswap, Curve, Binance, private MMs	Low (solvers route opportunistically)	Depth at benchmark sizes, capital efficiency	Spread revenue (being compressed by internalization)
Settlement	Ethereum, Arbitrum, Base, Optimism	Medium (gas costs, bridge latency)	Blockspace, sequencer revenue	Gas fees, sequencer profit (being commoditized)

Key Insight

The bottleneck is **Execution**. If solver infrastructure is removed, the intent system collapses, no one can fill orders. This is the investment layer.

7. Market Structure Analysis

Distribution

User acquisition and capital onboarding are controlled by wallets and frontend interfaces. However, switching costs are low: users can change UIs without changing underlying keys. This layer is **disintermediateable** by embedded wallets and AI agents that bypass traditional interfaces.

Liquidity

AMMs historically owned liquidity depth. But liquidity is **mercenary** — LPs chase highest yields, and solvers route opportunistically across venues. As intent volume grows, AMM liquidity becomes increasingly **dependent on solver routing** rather than direct user flow. The power dynamic shifts: AMMs compete for solver attention, not user attention.

Order Flow

This is the critical battleground. Intent protocols control routing and execution, but solvers control **who actually fills the order**. Currently:

- **CoW Protocol:** 28 total solvers exist; only 12 handle >1% of volume. The top 3 solvers account for **>50% of all volume**; one solver captures nearly **50% of all rewards**. To quantify concentration, we compute the **Herfindahl-Hirschman Index (HHI)** using the reported solver distribution. Assuming the top solver holds ~35% of volume (implied by capturing ~50% of rewards, with rewards skewed toward winners), the second ~12%, and the third ~8%, the remaining 45% is distributed among 25 solvers (12 at ~2.5% each, 13 at ~0.5% each):
 - $HHI = 35^2 + 12^2 + 8^2 + 12 \times (2.5)^2 + 13 \times (0.5)^2$
 - $HHI = 1,225 + 144 + 64 + 75 + 3.25 \approx \mathbf{1,511}$
 - If the top solver's volume share exceeds 45% (plausible given reward concentration), HHI rises to **~2,000–2,500** (moderately-to-highly concentrated per DOJ/FTC guidelines). The exact HHI is sensitive to the top solver's share, which is not publicly disclosed, but the directional signal is clear: solver markets are already more concentrated than the aggregate AMM market and trending toward oligopoly.
- **UniswapX:** Internalization ratio is lower than all aggregators combined (mean 0.013 vs 0.051), but 84% of Uniswap interface volume already flows through UniswapX. The filler market is opaque but filling is permissionless, concentration is inevitable as scale economies emerge.
- **1inch Fusion:** 10 resolvers selected by 1INCH stake weight. Top resolvers control majority of volume.

User Relationships

Intent protocols own the end relationship through signed order data. However, users are **price-sensitive and interface-agnostic**. The protocol that consistently delivers best execution retains users. This creates **solver quality as the retention mechanism**, not brand loyalty.

Rent Capture

Today, the largest economic cut is taken by **AMMs (LP fees)** and **block builders (MEV)**. In 3–5 years, the solver layer will own the largest cut. Solvers capture:

- Surplus between user limit price and fill price
- Spread between fill price and liquidity source cost
- MEV that was previously extracted by searchers
- Cross-chain bridging spreads

Bottleneck Identification

The solver node is the investment. Remove the solver layer, and the intent system cannot function. The solver is the bottleneck that, if removed, collapses the system. No other layer has this structural indispensability combined with rising barriers to entry.

8. Team & Founder Assessment

This section evaluates the key teams building solver infrastructure and intent protocols, as the investment thesis is **thesis-driven across the vertical**, not a single-protocol bet.

CoW Protocol / Gnosis

- **Founder-Market Fit:** Gnosis has deep roots in Ethereum infrastructure (Gnosis Safe, Gnosis Chain). The team pioneered batch auctions and ring trades since 2020. Strong technical depth in mechanism design and optimization.
- **Track Record:** Shipped Gnosis Protocol V1 → CoW Protocol evolution. CoW Swap is the longest-running intent DEX with consistent ~30% aggregator market share.
- **Strategic Backers:** Gnosis DAO treasury provides substantial funding independence. Binance COW spot listing (Q4 2024) signaled exchange recognition of intent narrative.
- **Unfair Advantage:** Longest solver network operational history; deepest academic/optimization community; MEV Blocker integration provides complementary revenue.

Uniswap Labs (UniswapX)

- **Founder-Market Fit:** Hayden Adams and team built the dominant AMM. UniswapX represents their recognition that AMMs alone are insufficient for optimal execution.
- **Track Record:** Uniswap v2 → v3 → v4 → UniswapX. Dominant interface traffic (84% of interface volume through X).
- **Strategic Backers:** a16z, Paradigm, Union Square Ventures. Uniswap Foundation has \$50M+ in treasury for ecosystem grants.
- **Unfair Advantage:** Unmatched distribution. The Uniswap interface is the default DeFi trading venue. UniswapX can bootstrap filler volume through interface defaulting.

1inch Network (1inch Fusion)

- **Founder-Market Fit:** Sergej Kunz and Anton Bukov built the leading DEX aggregator before intent systems existed. Fusion extends their aggregation expertise into solver-based execution.
- **Track Record:** 1inch has consistently ranked as a top-3 aggregator by volume. Fusion mode now processes 36% of interface swaps.
- **Strategic Backers:** Binance Labs, Pantera, Dragonfly.
- **Unfair Advantage:** Existing aggregator user base and liquidity routing algorithms. Resolver staking model (1INCH-weighted) creates governance-controlled solver selection.

Emerging Solver Infrastructure (Barter, Propeller, Solver-specific teams)

- Several specialized solver teams (e.g., CoW's top solvers like **Gnosis Solver**, **1inch Fusion resolvers**, **UniswapX fillers** such as market makers) are building institutional-grade execution infrastructure. These are not yet tokenized but represent the **pure-play solver exposure** this thesis targets.
 - **Key Insight:** The most sophisticated solver operations are run by teams with **TradFi market-making or quantitative trading backgrounds**. They bring the exact expertise (latency optimization, inventory management, adverse selection modeling) that creates durable competitive advantage.
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9. Product & Adoption

User Segments

- **Retail:** 60–70% of intent volume. Gasless UX, MEV protection, and price improvement are primary drivers.
- **Institutional / Whales:** 20–30% of volume. Large block trades, MEV protection, and settlement certainty drive adoption. High-profile treasury management by crypto-native institutions using CoW Swap for block-size execution is emblematic of

the trend (author's observation based on on-chain transaction pattern analysis; no formal partnership data has been independently verified).

- **AI Agents / Bots:** 5–10% today (author's estimate based on the share of intent transactions signed by smart contract wallets and automated treasury management tools; no verified third-party data exists as of mid-2025), but fastest-growing segment. Autonomous agents naturally express actions as intents ("swap X for Y at best price") rather than crafting specific transactions.

Adoption Path

Intent protocols grew through:

1. **Cold start:** Solver subsidies (COW rewards, UniswapX filler incentives) bootstrap initial solver network.
2. **Distribution integration:** API/SDKs make frontend integration trivial (3 days vs. 2–3 weeks for traditional DEX routing).
3. **Performance validation:** Consistent price improvement over AMM direct routing drives organic volume.

Retention

CoW Protocol data indicates **highest retention rates in the aggregator competitive set** — users return month after month. This is structural, not incentive-driven: users who experience MEV protection and price improvement have no reason to return to naive AMM routing.

Growth Loops

- **Liquidity → Execution Quality:** More solver competition → better prices → more users → more volume → more solver revenue → more solver entrants.
- **However, the loop reverses to concentration:** As solver operation costs rise, only well-capitalized solvers survive. The loop becomes **oligopoly reinforcement**, not perfect competition.

Key Metrics (Estimated, Historical Baseline: Q2 2025 – Most Recent Verified Period)

Metric	CoW Protocol	UniswapX	1inch Fusion
Monthly Volume	\$3B–\$5B	\$4B–\$6B	\$1.5B–\$2.5B
Active Solvers/Fillers/Resolvers	28 (12 >1% volume)	Permissionless (unknown)	10 (stake-weighted)
Top 3 Concentration	>50% volume	Unknown (assumed >40%)	>60% volume

Protocol Revenue (Annual)	\$16M	Interface fee separate	Not disclosed
User Retention (90-day)	Highest in aggregator set	High (interface default)	Moderate

10. On-Chain Validation

Revenue

- **CoW Protocol:** Generated \$16.2M in protocol revenue over the trailing 12 months (as of mid-2025). Monthly revenues averaged ~\$1.3M, tracking broader market sentiment and trading volumes. Peak revenue in December 2024 (\$1.9M) coincided with post-election rally.
- **Critical observation:** Solver rewards also peaked at \$1.9M in December 2024, meaning the protocol **broke even** in its best month. This validates the thesis that solver costs scale with protocol success and are not negligible.

Fee Generation

- CoW Protocol charges a fee equal to **50% of user surplus**, taken in the sell token. This is collected by solvers and converted to COW tokens for the protocol. Fee capture per unit volume is higher for volatile pairs (larger surplus) and lower for stable-to-stable trades.
- **Capital efficiency:** Revenue/TVL ratio for intent protocols is substantially higher than AMM peers because solvers do not require protocol-owned liquidity. The protocol is an auction coordinator, not a liquidity provider.

TVL

- Intent protocols require minimal protocol-owned TVL. CoW Protocol's TVL is concentrated in solver bonds and fee accumulation, not user deposits. This is a **feature, not a bug**: capital efficiency is dramatically higher than AMMs.
- **AMM TVL impact:** Academic research confirms that higher internalization ratios predict **lower AMM TVL** and **worse AMM spreads**. As intent volume grows, AMM TVL becomes increasingly toxic-flow-dominated, reducing LP returns and driving capital migration to solver-controlled private liquidity.

Active Addresses

- CoW Protocol user base is smaller than Uniswap but exhibits **highest retention rates** among aggregators. This indicates sticky, high-quality users who are not mercenary yield farmers.

Liquidity Depth

- **Price improvement data:** UniswapX and CoW Protocol consistently deliver **positive surplus** to users versus AMM benchmarks. The "Quantifying Price Improvement in Order Flow Auctions" paper (Moallemi et al.) demonstrates that Dutch auction mechanisms capture meaningful price improvement, particularly for large trade sizes.
- **Slippage comparison:** At benchmark trade sizes (\$10k–\$100k), intent protocols deliver lower effective slippage than direct AMM routing due to multi-source liquidity aggregation and private inventory access.

Proprietary Metric: Solver Internalization Ratio (SIR)

To track the thesis in real time, we define the **Solver Internalization Ratio (SIR)**:

$$\text{SIR} = (\text{Intent Protocol Solver-Filled Volume}) / (\text{Total DEX Volume}) \times (\text{Solver Rent} / \text{AMM LP Fee Revenue})$$

Why it matters: SIR measures not just how much volume has migrated to intent protocols, but how much *economic rent* has been captured by solvers relative to what AMM LPs historically earned. An $\text{SIR} > 1.0$ means solvers are extracting more rent per dollar of volume than AMM LPs, the structural tipping point where value migrates from liquidity provision to execution intermediation.

Current estimate (Q2 2025 baseline):

- Intent solver-filled volume: ~\$10B–\$15B/month (aggregate, non-overlapping)
- Total Ethereum DEX volume: ~\$50B–\$80B/month
- Solver rent at 4–8 bps: ~\$4M–\$12M/month
- AMM LP fee revenue (net of IL) at 1–3 bps: ~\$5M–\$24M/month on \$50B–\$80B
- **SIR ≈ 0.3 – 0.6** (solvers capture 30–60% as much rent as AMM LPs, on 15–25% of volume)

Thesis confirmation threshold: SIR crossing 1.0 — solvers capture more rent than AMM LPs despite handling a minority of volume. This would mirror the TradFi PFOF transition where Citadel and Virtu internalized 25–30% of retail flow but captured disproportionate economic rent.

Data Sources

- CoW Protocol Dune dashboards: [CoW Swap Global Metrics](#), [Solver Info](#)
 - Cross-protocol solver dashboard: [Solvers Data Dashboard](#)
 - Academic: "What Drives Liquidity on Decentralized Exchanges? Evidence from the Uniswap Protocol" (arXiv:2410.19107)
 - Academic: "Quantifying Price Improvement in Order Flow Auctions" (Moallemi et al., 2024)
 - PFOF concentration data: SEC Rule 606 filings, Wharton Fintech Policy Research
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11. Protocol Economics

11A. Business Model

Intent protocols operate as **execution auction coordinators**. Their revenue model is:

- **CoW Protocol:** 50% of user surplus fee, collected in sell token, converted to COW. MEV Blocker revenue (<10% of total). Solver rewards are fixed COW emissions reviewed every 6 months.
- **UniswapX:** Protocol fee on fills (variable by pair/volume), plus interface fee (0.15%) on trades through Uniswap interface. Filler revenue is the spread between Dutch auction fill price and liquidity source cost.
- **1inch Fusion:** Resolver staking model; resolvers selected by 1INCH stake weight. Protocol fee extracted from resolver spread.

Revenue Durability: High. Execution coordination is a natural monopoly/oligopoly function. Once solver networks achieve scale, switching costs for frontends rise (API integration, execution quality reputation). However, fee capture is vulnerable to **vertical integration** (wallets running their own solvers) or **protocol competition** (UniswapX undercutting CoW on fees).

11B. Value Accrual

Token	Fee Distribution	Buyback/Burn	Staking Yield	Treasury Accumulation	Governance Rights
COW	Protocol fees converted to COW (buy pressure)	No explicit burn	No native staking	Gnosis DAO treasury	Solver whitelisting, fee parameter changes
UNI	UniswapX protocol fees accrue to treasury	No active burn	No native staking	Uniswap Foundation treasury	Fee switch (historically inactive), governance
1INCH	Fusion resolver selection by stake	No active burn	Staking for resolver rights	1inch DAO treasury	Resolver selection, fee parameters

Key Test: If CoW Protocol doubles revenue, does COW token value double? **Partially.** Revenue is converted to COW, creating buy pressure. However, solver rewards also rise (in COW terms), creating sell pressure from solver profit-taking. The net effect is **positive but diluted**. The token is a levered play on solver activity, but with negative convexity in bull markets (reward costs rise with COW price).

11C. Token Economics

Token	Circulating Supply	FDV	Unlock Schedule	Emissions	Supply Sinks
COW	~70% circulating	~\$300M–\$400M (est.)	Team/investor vesting largely complete	Solver rewards (reviewed every 6 months)	Protocol fee → COW conversion (buy sink)
UNI	~75% circulating	~\$6B–\$8B	Vesting largely complete	Minimal	None significant
1INCH	~60% circulating	~\$1B–\$1.5B	Ongoing vesting	Staking rewards	Staking lock-up for resolver rights

Key Question: Can demand growth outpace supply expansion?

- **COW:** Yes, if protocol revenue grows faster than solver reward emissions. Risk: solver reward costs are denominated in COW and scale with price.
- **UNI:** Governance token with no direct fee accrual. UniswapX growth does not directly accrue to UNI unless fee switch is activated.
- **1INCH:** Demand is tied to resolver staking requirements. If Fusion volume grows, demand for 1INCH staking rises.

11D. Governance & Decentralization Risk

Protocol	Admin Key / Multisig	Upgradeability	DAO Concentration	Governance Participation	Regulatory Risk
CoW	Gnosis DAO governance	Timelocked	Moderate (Gnosis treasury influence)	Moderate	Low-moderate (solver whitelisting is semi-permissioned)
Uniswap X	Uniswap Labs + Foundation	Timelocked	High (a16z, Paradigm influence)	Moderate	Low (permissionless fillers)
1inch	1inch DAO + core team	Timelocked	Moderate	Low	Moderate (KYC-required resolvers)

Regulatory implications: If regulators apply SEC Rule 615-style logic to on-chain execution (requiring competitive auctions before internalization), permissionless solver networks (UniswapX) may have advantage over semi-permissioned networks (CoW, 1inch Fusion).

12. Competitive Positioning

Direct Competitors

- **CoW Protocol vs. UniswapX vs. 1inch Fusion:** These three dominate intent-based execution. CoW has longest track record and strongest MEV protection narrative. UniswapX has unmatched distribution. 1inch Fusion has existing aggregator user base.
- **Across Protocol:** Cross-chain solver network with similar concentration dynamics. 10 of 78 solvers handle >1% of volume; team-operated solver (Nessus) covers ~50% of volume as last-resort filler.

Indirect Competitors

- **Traditional DEX aggregators (1inch classic, Paraswap, 0x):** These use on-chain routing, not intent-based solver auctions. They are being displaced by intent systems for complex trades.
- **AMMs with built-in solver logic (Uniswap v4 hooks, Curve):** AMMs may vertically integrate intent-like functionality, but this is technically challenging and contradicts the AMM's passive LP model.

Future Entrants

- **CEX-backed solvers:** Binance, Coinbase, or Kraken could operate solvers to capture on-chain flow. They have the capital, inventory, and latency infrastructure.
- **AI-agent execution layers:** Autonomous trading agents may build proprietary solver networks or demand specialized solver APIs.
- **TradFi market makers entering DeFi:** Citadel, Virtu, or Jump Crypto could launch institutional solver operations. This would accelerate concentration dramatically.

Comparison Matrix

Factor	CoW Protocol	UniswapX	1inch Fusion
Liquidity	Multi-source (AMMs + private + CEX)	Multi-source + RFQ	Multi-source + market maker resolvers
Distribution	Strong (aggregator + API)	Dominant (Uniswap interface default)	Strong (existing 1inch user base)

Revenue	\$16M annual (protocol)	Interface fee + protocol fee	Not fully disclosed
Moat Type	Solver network + batch optimization	Interface distribution + brand	Aggregator integration + staking-gated resolver network
User Retention	Highest in aggregator set	High (interface default)	Moderate
Decentralization	Semi-permissioned solvers	Permissionless fillers	KYC/stake-gated resolvers

Moat Analysis

Moat Type	CoW	Uniswap X	1inch Fusion	Assessment
Liquidity moat	Medium	Medium	Medium	Solvers source liquidity opportunistically; no durable liquidity lock-in
Distribution moat	Medium	High	Medium	Uniswap interface is dominant DeFi entry point
Regulatory moat	Low	Medium	Low	Permissionless fillers may have regulatory advantage
Data moat	High	Medium	Medium	CoW has longest solver auction history and optimization data
Brand moat	Medium	High	Medium	Uniswap is the Coca-Cola of DeFi
Ecosystem moat	Medium	High	Medium	Uniswap v4 hooks + UniswapX create integrated ecosystem

Conclusion: No single protocol has insurmountable moat. The **solver layer itself** (across protocols) is where durable advantage lies. A sophisticated solver can operate across CoW, UniswapX, and 1inch Fusion simultaneously, capturing execution rent regardless of which intent protocol wins.

13. Second-Order Effects

Winners

- **Solver infrastructure teams:** The "picks and shovels" of intent execution. Teams that build cross-protocol solver stacks, inventory management systems, and execution algorithms.
- **Intent-native wallets:** Wallets that embed intent signing as default UX (e.g., smart contract wallets with built-in CoW/1inch integration).
- **Cross-chain messaging protocols:** Intents require cross-chain liquidity and settlement. Protocols like Everclear, LayerZero, or Axelar that solver networks rely on for rebalancing.
- **AI agent frameworks:** Autonomous agents express actions as intents by default, creating structural demand for solver networks.

Losers

- **Passive AMM LP tokens:** UNI, CRV, BAL, and other LP-centric tokens in markets where intent internalization dominates. As uninformed flow is siphoned to solvers, AMM pools become toxic-flow dominated, reducing LP returns and TVL.
- **MEV searchers / block builders:** Public mempool MEV is reduced as flow migrates to private intent channels. Block builder revenue may decline unless they vertically integrate into solver operations.
- **Simple DEX aggregators:** On-chain routers (1inch classic, Paraswap) are displaced by solver-based execution for non-trivial trades.

New Bottlenecks

If the solver layer scales, the next constraint emerges at **cross-chain settlement and rebalancing**. Solvers need to move inventory across L2s and CEXs in near-real-time. Bridge latency, finality risk, and rebalancing costs become the binding constraint. This creates opportunity in **cross-chain liquidity orchestration** and **solver inventory financing**.

New Opportunity Sets

- **Solver inventory financing:** Lending protocols that provide short-term capital to solvers for inventory rebalancing (analogous to prime brokerage in TradFi).
- **Solver performance analytics:** Data products that rank solver execution quality, enabling frontends to optimize solver selection (analogous to transaction cost analysis in equity markets).
- **Regulatory arbitrage infrastructure:** If SEC-style Rule 615 is applied to on-chain execution, protocols that offer transparent auction mechanisms may gain competitive advantage.

Feedback Loops

- **Solver concentration → Better prices → More volume → Higher solver revenue → More capital for solver infra → Higher barriers to entry → More concentration.** This is the core feedback loop that accelerates the oligopoly outcome.
 - **LP yield compression → Capital exits AMMs → AMM depth declines → Solvers become even more necessary for execution → More volume routed to intents → Further LP compression.** This is the death spiral for passive AMM liquidity.
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14. Catalysts

Near-Term (0–12 months)

- **CoW Protocol or UniswapX sustained monthly volume >\$25B:** Would confirm intent adoption has crossed the chasm from niche to mainstream.
- **Solver HHI exceeding 2,500 on CoW or UniswapX:** Documented concentration crossing the threshold into "highly concentrated" territory (analogous to TradFi HHI levels that trigger regulatory scrutiny).
- **First institutional solver fundraise at \$500M+ valuation:** Would validate solver infrastructure as a standalone asset class and attract TradFi market-making talent.
- **Uniswap v4 hooks + UniswapX integration:** Vertical integration of AMM and intent layers could accelerate interface defaulting to intent execution.

Medium-Term (1–3 years)

- **Cross-chain intent volume exceeding single-chain volume:** Would demonstrate that solver networks have solved the cross-chain rebalancing problem, dramatically expanding TAM.
- **AI-agent trading volume reaching 20%+ of intent volume:** Would create structural, inelastic demand for solver execution that does not comparison-shop across UIs.
- **Major TradFi market maker (Citadel, Virtu, Jump) launching DeFi solver operation:** Would import TradFi market structure and concentration dynamics directly on-chain.
- **Regulatory clarity on intent execution:** Either favorable (recognizing as best execution) or unfavorable (Rule 615-style auction requirements) — both outcomes validate the thesis by confirming intent execution as systemically important.

Long-Term (3–5 years)

- **DeFi becoming default settlement infrastructure for tokenized assets:** If RWA and stablecoin settlement volume migrates on-chain, solver networks become the execution layer for institutional-sized block trades.

- **Solver networks achieving "too big to fail" status:** If 3–5 solvers internalize 60%+ of all DeFi order flow, protocol governance and regulatory attention will focus on solver resilience and anti-competitive behavior.
- **Emergence of solver-native financial instruments:** Solver revenue streams could be tokenized, securitized, or structured into yield products — replicating the evolution of market-maker funding in TradFi.

15. Liquidity & Position Construction

This section addresses investability of the **solver infrastructure thesis** rather than a single token, as the thesis is vertical-driven.

Float & Depth (Protocol Tokens as Proxy Exposure)

Metric	COW	UNI	1INCH
Market Capitalization	~\$250M–\$350M	~\$5B–\$7B	~\$800M–\$1.2B
Circulating Float	~70%	~75%	~60%
30-Day Average Volume	~\$20M–\$40M/day	~\$100M–\$200M/day	~\$30M–\$60M/day
Bid-Ask Spread	5–15 bps	2–5 bps	5–10 bps
Market Depth (2% slippage)	~\$500K–\$1M	~\$5M–\$10M	~\$1M–\$2M

Unlock Overhang

- **COW:** Team/investor vesting is largely complete. Minimal near-term unlock pressure. Solver reward emissions are the primary supply expansion (variable, reviewed every 6 months).
- **UNI:** Vesting largely complete. No significant unlock overhang. However, UNI is a poor direct proxy for the solver thesis because UniswapX growth does not directly accrue to token holders absent fee switch activation.
- **1INCH:** Ongoing vesting creates moderate supply pressure. Resolver staking creates demand sink but not enough to fully offset emissions.

Entry Strategy

- **Primary exposure:** Direct equity or token-warrant investments in solver infrastructure teams (e.g., top-performing CoW solvers such as Gnosis Solver and private market-maker fillers, UniswapX institutional fillers with TradFi market-making backgrounds, and cross-protocol solver stacks). These are typically structured as **Series A/B equity rounds, SAFTs for protocol-native solver tokens, or token**

warrants with 2–3 year lockups and \$2M–\$10M minimum ticket sizes. Access is restricted to venture funds with DeFi infrastructure mandates (e.g., Dragonfly, Paradigm, a16z crypto). Hedge funds and allocators without direct venture access should seek secondary exposure through fund-of-funds structures or token proxies (COW, 1INCH). The investability constraint is real: there is no liquid market for solver equity, and the top 3–5 solver operations are not fundraising publicly as of mid-2025.

- **Public market proxy:** COW token offers the most direct exposure to intent protocol growth, but with negative convexity (solver costs rise with COW price). UNI offers exposure to UniswapX distribution but weak value accrual. 1INCH offers Fusion staking demand but diluted by emissions.
- **TWAP entry:** For public token positions, use 30-day TWAP given crypto volatility and event-driven price action.

Exit Strategy

- **Position becomes difficult to exit if:** Solver concentration thesis fails to materialize (e.g., permissionless solver competition remains viable, no HHI increase). Reduce position if CoW/UniswapX volume stalls below \$10B/month sustained.
- **Target market cap for exit:** If COW FDV exceeds \$1B without proportional revenue growth (>\$50M annual), position is overvalued relative to execution-layer fundamentals.

Sizing

- Given liquidity constraints and thesis risk, maximum public-market solver proxy position: **3–5% of DeFi sleeve**.
- Private solver infrastructure allocations: up to **2% of total portfolio** if fund structure permits venture-style exposure.
- **Hedge:** Maintain underweight or short exposure to AMM LP-centric tokens (CRV, BAL, SUSHI) in markets where intent internalization is highest (Ethereum mainnet, Arbitrum, Base).

16. Valuation

Relative Valuation

Metric	COW (Est.)	Peer Median (Aggregator/Infra)	Premium / Discount
FDV	~\$350M	~\$500M–\$800M	Discount (~30–50%)
Market Cap	~\$250M	~\$400M–\$600M	Discount
Revenue Multiple (P/S)	~20x	~30–50x	Discount

TVL Multiple	N/A (minimal TVL)	~0.5–2x	N/A
P/S Ratio (Annualized)	~20x	~40x	Discount to aggregator peers

Assessment: COW trades at a discount to aggregator peers because the market does not recognize intent execution as a distinct, higher-margin business model. If solver infrastructure were valued at TradFi market-making multiples (10–15x revenue for dominant players), the top intent protocol/solver stack would command \$1B–\$3B FDV at base-case revenue.

Absolute Valuation

Building from protocol capture rate (Section 5):

- **Base case:** \$45B monthly volume × 5 bps capture × 50% protocol share (CoW/UniswapX/1inch) = \$135M annual protocol revenue.
- **At 15x revenue multiple** (the lower bound of the 10–15x TradFi market-making comp applied in Section 8, reflecting execution-risk discount in a nascent market): Implied solver/protocol infra value = **\$2.0B**. In the bull case, where winner-take-most dynamics and network effects are proven, a 20x multiple (DeFi infrastructure premium) is justified.
- **Current combined FDV** of COW + 1INCH + relevant UNI value attributable to X: ~\$1.5B–\$2B.
- **Upside to base case:** 33–80% return from current levels if thesis materializes over 24–36 months.

Scenario Analysis

Scenario	Probability	Implied Solver/Infra Value	Return from Entry
Bear	25%	\$800M	-47%
Base	50%	\$2.0B	+33%
Bull	25%	\$6B+	+300%
Expected Value	—	\$2.7B	+80%

17. Risk Matrix

Risk Category	Probability	Severity	Monitoring Indicator	Invalidation Trigger
Regulatory	Medium (30%)	High	SEC/CFPB statements on DeFi execution; MiCA enforcement on solver KYC	Rule 615-style auction mandate destroys solver margins; permissionless solver networks forced to implement KYC
Competitive	High (40%)	Medium	New intent protocol launches; AMM v4 innovation	Uniswap v4 hooks recapture 30%+ of intent volume; new permissionless solver protocol achieves 15%+ market share with low HHI
Technology	Medium (25%)	High	Solver exploit/breach; smart contract failure	>\$50M solver settlement failure; critical vulnerability in batch auction mechanism
Governance	Low (15%)	Medium	DAO votes to reduce solver rewards; token holder capture of protocol	CoW DAO votes to eliminate solver rewards or nationalize solver function
Liquidity	Medium (30%)	Medium	COW/1INCH volume decline; AMM TVL resurgence	Intent volume share declines below 25% for 2 consecutive quarters; AMM LP yields rise above solver-implied returns
Tokenomics	Medium (25%)	Medium	COW emissions exceeding revenue; solver reward unsustainability	Protocol revenue / solver reward ratio falls below 0.5 for 6 consecutive months
Execution	Medium (20%)	High	Team departure at core intent protocol; key solver team defection	Uniswap Labs abandons UniswapX; CoW core team departure; top 3 solvers exit network

18. Investment Conclusion

Thesis

The migration from AMM-based execution to intent-based execution is not a UX improvement — it is a structural regime change that replicates the payment-for-order-flow and internalization dynamics of TradFi. Solver markets are concentrating around a small number of well-capitalized, technically sophisticated operators, precisely as wholesale market-making concentrated around Citadel, Virtu, and Jane Street. The economic rents that passive AMM LPs historically captured are migrating to execution intermediaries. The most important investment in DeFi is not in AMMs, aggregators, or liquidity protocols — it is in **solver infrastructure and the execution layer**.

Return Expectation

Probability-weighted expected return of **+70%** over 24–36 months on a blended solver infrastructure exposure (private solver teams + public proxy tokens), with base case +33% and bull case +300%. This is a **medium-conviction, medium-horizon structural bet** on DeFi market structure evolution.

Catalysts to Watch

1. **CoW Protocol or UniswapX sustained monthly volume crossing \$25B** — confirms intent adoption has reached escape velocity.
2. **Solver HHI exceeding 2,500** on any major protocol — documents oligopoly formation and validates the PFOF parallel.
3. **First TradFi market maker (Citadel, Virtu, Jump) launching on-chain solver operation** — imports institutional concentration dynamics and validates solver infrastructure as a standalone asset class.

Recommendation

Invest — with a 3–5% DeFi sleeve allocation to solver infrastructure exposure (private solver teams + COW token as public proxy). **Monitor** — UniswapX and 1inch Fusion concentration metrics. **Underweight** — AMM LP-centric tokens (CRV, BAL, SUSHI) in verticals where intent internalization is highest. This is a thesis that benefits from time and volume adoption. The market is mispricing execution infrastructure because it is applying AMM-era frameworks to an intent-era market structure.

What Would Change Your Mind

- **Intent volume share stalls below 25%** for two consecutive quarters, indicating AMMs retain execution dominance.
- **Solver HHI remains below 1,500** despite 18+ months of growth, indicating contestable (not oligopolistic) solver markets.

- **Regulatory mandate** (analogous to SEC Rule 615) requires on-chain competitive auctions before internalization, compressing solver margins below 2 bps and eliminating the rent-extraction thesis.
- **Major AMM protocol** (Uniswap v4, Curve ng) introduces native intent-like routing that recaptures 40%+ of execution rent without solver intermediation.

This memo is for informational purposes only and does not constitute investment advice. All figures are estimates based on publicly available data, on-chain analytics, and academic research as of March 2026. The author holds no positions in the tokens discussed and has no commercial relationship with the protocols mentioned.
