Onchain Asset Management

Designing the Future of Investment Strategies

Keyrock

Maple

Morpho PENDLE GONDI Gauntlet yearn MEV CAPITAL

Keyrock

Founded in Brussels in 2017, Keyrock is a global crypto investment firm at the forefront of market making, asset management, OTC, and options trading for digital assets. Providing liquidity to over 85 centralised and decentralised venues worldwide, their 170-strong team operates across 37 countries, with entities in Belgium, the UK, Switzerland, France, and the U.S. Keyrock's commitment to the industry is practical, not theoretical. They offer in-depth industry insights, co-create DeFi ecosystems, and actively support Web3 startups.

With Keyrock, the future of digital assets is not just envisioned; it's actively being built.

Maple

Maple, launched in 2021, is an onchain Asset Manager with decades of traditional finance and crypto experience. Maple combines capital markets expertise with DeFi innovation to power a suite of offerings including secured lending, Bitcoin Yield, and structured products.

As a leader in decentralized finance and institutional crypto markets, Maple has built a global asset management ecosystem focused on innovation and accessibility. Central to this ecosystem is the $SYRUP Token which empowers the Maple community through staking, governance, and shared protocol growth.

Maple is pioneering the future of onchain asset management.

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Foreword

Asset management is being rewritten onchain. What began as experimental passive vaults and vanilla lending markets has matured into a rapidly expanding ecosystem that has attracted over $35 billion in AUM. This year we have seen this explode with a 118% growth in assets under management year-to-date.

Strategies that once sat at the fringe of decentralised finance are now operating at billion dollar scale, with institutional-grade infrastructure. Protocols like Maple Finance, Morpho, Pendle, Gauntlet, and Yearn sit at the forefront of this transformation.

In building this report, we engaged directly with the leading protocols and curators shaping the sector to gain deep insights on their vision for the future of onchain asset management. Their insights reveal how composability, programmability, and transparency are creating a financial architecture fundamentally different from its traditional counterpart. At Keyrock and Maple, we see this evolution first-hand in our work as both market participants and infrastructure builders, and believe it represents one of the most important shifts in digital assets and asset management specifically today.

This report provides a data-driven analysis of onchain asset management. From the current state of capital flows, fees, and performance to forward-looking forecasts and catalysts, it offers a clear view of how this market is likely to evolve over the next 18 months. We hope it serves as a roadmap for allocators, protocols, and institutions seeking to navigate and build within this new paradigm of onchain finance.

- **Kevin de Patoul, CEO, Keyrock**
- **Joe Flanagan, Executive Chairman & Co-Founder**

Key Insights

1. **Exponential Growth in the Past Year:** Onchain asset management AUM has more than doubled in 2025, growing **118%** YTD to **$35 billion.**

2. **Concentration in Leaders:** Across the entire onchain asset management industry, three protocols (Morpho, Pendle, Maple) account for **31%** of all AUM, underscoring the depth of leadership in scaling but also protocol concentration risk.

3. **Automated Yield as the Gateway:** Passive yield vaults remain the entry point for allocators, representing the largest share of AUM at **$18 billion.**

4. **Large Allocators Drive the Flows:** While smaller wallets (**<$10k**) make up most depositors, whales (**>$1m**) and dolphins (**>$100k**) supply the vast majority of capital across all strategies, accounting for **70–99%** of AUM.

5. **Performance Now Mixed, Not One-Sided:** Net returns are competitive with traditional finance but not universally higher. Onchain credit lag and structured product strategies lag slightly after fees.

6. **Onchain Passive Strategy Breakout:** Automated yield vaults outperform their traditional peers by **~186 bps** after fees, highlighting the benefits of programmatic reinvestment and higher stablecoin lending rates.

7. **Discretionary Strategies Hold Firm:** Protocols like Gauntlet and MEV Capital have positioned discretionary onchain strategies as a credible hedge fund alternative, delivering returns net of fees in line with their traditional finance counterparts, with added redemption liquidity benefits.

8. **Onchain Asset Management Is On Track to Become a $64 billion Industry by 2026:** Our base case AUM forecast, with moderate growth assumptions of **56.4% CAGR** project the industry reaching **$64 billion** AUM by end-2026. Bull case forecasts that assume 2025 growth rates continue through 2026 push this to **$85 billion.**

1.

Executive Summary

1. Executive Summary

Onchain asset management saw phenomenal momentum in 2025, with overall AUM in automated onchain yield strategies, discretionary onchain strategies, onchain structured products and onchain credit more than doubling to more than **$35 billion** year-to-date.

The growth has been broad-based, with all core strategy buckets posting healthy increases led by discretionary onchain strategies, up **738%** YTD. This growth was achieved while performance comparisons remained mixed, but competitive. In gross performance terms, structured products led the pack at **10.3%** APY, while discretionary strategies delivered **9.7%** APY, automated strategies **8%** and onchain credit **7.5%**. Net of fees, outcomes narrow substantially, with discretionary strategies landing broadly in line with their traditional peers, while structured products and credit lagged slightly once costs are accounted for. Automated yield vaults outperformed their traditional peers by **~186 bps** after fees.

The clearest takeaway is that onchain strategies are no longer an experiment, they are delivering competitive, risk-adjusted returns in formats that are more transparent, more composable, and often more accessible than traditional finance equivalents.

Forward projections to year-end 2026 based on bull, base, and bear assumptions forecast that AUM will reach **$85 billion, $64 billion,** or **$41.6 billion**, respectively. We anticipate that growth will be driven by the accelerated injection of institutional capital in the form of whitelisted pools of credit, structured products, and compliant treasury management regimes, as well as regulatory clarity in the key jurisdictions, and enhancements to onchain infrastructure.

2.

Mapping the Onchain Asset Management Landscape

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The global asset management industry, with over **$145 trillion** of AUM in 2025 (PwC, 2025), is a pillar of modern finance. But despite its scale, the old model is layered with inefficiencies, with limited access, delayed settlement times, and poor transparency diminishing its effectiveness. Minimum balance requirements continue to leave behind the vast majority of retail investors, while operational procedures tend to rely on back-end manual reconciliations and audit.

Meanwhile, the financial services industry is in the midst of a structurally transformative wave fueled by blockchain technology, one that goes far beyond asset management. At its core, blockchain replaces single, distributed sources of truth with proprietary, siloed ledgers leveraging assets that move and settle in real-time without reliance on semi-integrated intermediaries. Settlements are executed in seconds, not days. Securities are tokenised and traded 24/7, borderless, without custodian bottlenecks. Collateral can be pledged, verified, and returned automatically through smart contracts. These capabilities are now extending to every corner of finance, from trade finance and remittances to capital markets, paving the way for a more transparent, less costly, and programmatic financial system.

Traditional finance is reaching an inflection point. Blockchain has moved beyond proof-of-concept, with scalable L1 and L2 networks capable of handling billions of volume per day. Capital is abundant onchain today, thanks to crypto-native liquidity and institution entry. Regulatory clarity has moved forward to the point where tokenised securities, permissioned pools, and compliant stablecoins are being operated at scale. Investor awareness has risen too. The ‘crypto’ conversation is no longer purely about speculative tokens, but programmable markets and yield-bearing digital assets. It is in this greater transformation, with capital, infrastructure, and user readiness in place, that onchain asset management is one of the most appealing applications.

I. From Traditional to Onchain

Asset management is the allocation of capital on behalf of a client, to generate returns within a given risk profile. In the legacy model, that involves fund managers deploying capital into equities, bonds, real estate, and other asset classes, aiming to beat inflation or a predefined benchmark, manage risk, and meet client objectives.

But legacy infrastructure is struggling to meet the demands of a digital-first investor base:

1. **Fees:** Mutual funds still charge **60-100 bps** average management fees, which dramatically reduces long-term returns, particularly relative to performance.

2. **Access:** Alternative strategies and private funds usually involve **$250k+** minimums, pricing out most retail investors.

3. **Speed & Transparency: T+2 day** settlement delays remain prevalent in equities, and fund NAVs are reported daily or weekly, rather than in real time.

4. **Operational Risk:** Manual processes leave room for human error, fraud, and inefficient use of capital.

Blockchain-based asset management offers an alternative; programmable, trust-minimised systems where capital can be deployed and rebalanced by smart contracts with instant settlement and public auditability.

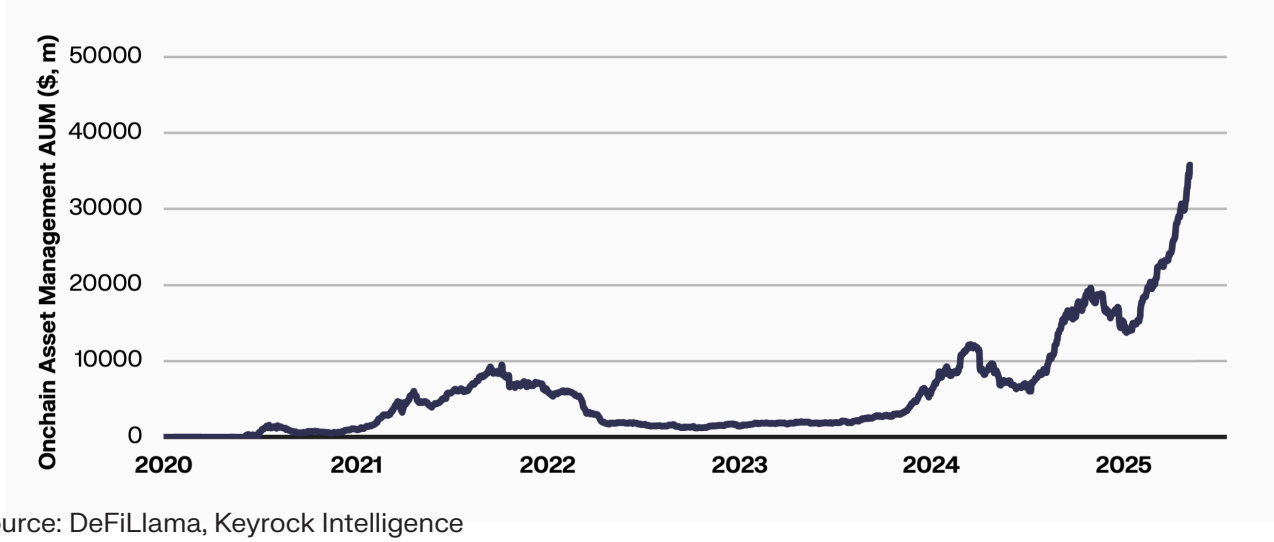
Now, it's one thing to say blockchain is a superior set of rails for finance, and on paper, it's virtually a no-brainer. Instant settlement, global reach, programmable contracts, radical transparency; compared to the three-day paper shuffle of traditional systems. It's like trading in a Blackberry for an iPhone, same general purpose, but quicker and capable of doing things you didn't even know you needed. But improved rails alone don't equate to a functional financial system. To actually implement asset management onchain, you need the containers and cargo; assets to invest in, markets to trade on, ways to generate yield, and infrastructure to manage risk.

It was the same set of tools which began to come together during the fabled 'DeFi Summer' of 2020. Within months, Uniswap had proven at scale that onchain trading and liquidity provision were possible, Aave and Compound turned borrowing and lending into button clicks, and Yearn Finance automated yield farming across these emerging markets. These were more than speculative playgrounds, they were the first functional building blocks of an onchain financial stack.

Layer in the growth of onchain assets, and the system begins to look increasingly attractive for supporting serious capital allocation. Stablecoins, in particular, have acted as the primary bridge between traditional capital and onchain markets. As reliable, dollar-pegged assets that move instantly across the globe, their role extends far beyond payments. They have become the denominator for performance measurement, the base currency for most DeFi strategies, and the deep liquidity source that allows managers to deploy and rebalance at scale. From ~$10 billion in mid-2020 to over $263 billion today, stablecoins have transformed onchain finance from an experiment into a viable venue for institutional-grade asset management.

Onchain Asset Management, AUM

2020 - 2025



Source: DeFiLlama, Keyrock Intelligence

So today, liquidity is deeper, risk controls are more sophisticated, and new primitives like tokenised treasuries, onchain derivatives, and permissioned credit pools mean managers can run strategies that resemble, and often outperform, their Traditional Finance counterparts. In other words, the rails are finally paved, signposted, and safe enough to drive a serious amount of capital over. Asset management isn't just possible onchain anymore; in many cases, it's becoming the more competitive option.

II. Defining Landscape and Scope

Definition: Onchain Asset Management is the management of digital assets, crypto-native or tokenised Real-World Assets (RWAs), through a third-party using blockchain-based infrastructure, where investment mandates are executed via smart contracts and recorded on a public ledger.

For the purpose of this report, we have clearly defined our onchain asset management strategy universe as follows:

1. **Automated Onchain Yield Strategies:** Strategies such as automated yield aggregation, where capital is deployed into multiple DeFi protocols according to predefined logic. These vaults rebalance periodically or continuously to maximise returns from lending, liquidity provision, or farming incentives, without active human discretion. Examples include Yearn, Morpho, Beefy, and Veda.

2. **Discretionary Onchain Strategies:** Actively managed positions across DeFi protocols, with portfolio allocation and risk management decisions made by managers in real time. These strategies may rotate between yield opportunities, hedge exposures, or capture inefficiencies, often using proprietary research and execution. Examples include Re7 and MEV Capital.

3. **Onchain Structured Product Strategies:** Onchain vehicles that package derivatives and yield strategies into defined payoff profiles, such as covered calls, cash-secured puts, basis trades, or volatility capture. These products allow investors to express directional or volatility views with automated settlement and transparent terms. Examples include Aevo and Pendle.

4. **Credit Strategies in Onchain Asset Management:** Lending-based strategies that involve underwriting, structuring, or tranching credit risk onchain. This includes complex lending products, unsecured credit pools, and permissioned institutional lending, often with tokenised loan instruments and programmatic repayment flows. Examples include Maple and Gondi.

What sets all of the above strategies apart from their traditional finance counterparts, and is essentially inherent in onchain asset management, is that transparency is embedded. This spans across portfolio holdings, transactions, and even performance, all of which are verifiable onchain. Smart contracts are able to replace the vast majority of intermediaries, lowering costs and mitigating, or shifting, risk.

To focus our analysis on meaningful operators, we apply the following criteria inclusion filters:

1. **Third-party capital:** Must manage or facilitate the management of external deposits.

2. **Beyond vanilla lending:** Strategies must go beyond simple deposit and borrow mechanics.

3. **Digital Asset-denominated:** Primary accounting in stablecoins or volatile digital assets.

4. **Minimum scale:** At least **$10 million** in AUM or facilitated AUM.

5. **Onchain operation:** Strategies are executed via smart contracts on public blockchains.

In the following sections, we will quantify capital concentration and examine how strategies and asset exposures are evolving in real time to form the statistical foundation for our growth forecasts.

3.

Automated Onchain Yield Strategies

I. Defining Automated Onchain Yield Strategies

While there are a variety of automated strategies onchain, they generally fall into three camps; those centred around DEXes with liquidity provision to capture trading fees, those that deposit into money markets with lending and borrowing strategies, and those that deposit into staking protocols to centre strategies around staking yield. Of course, we also often see strategies that leverage a mixture of the many flavours of onchain yield on offer. There is one distinctive feature that defines automated onchain yield strategies, and that's that these are generally integrators rather than originations, i.e. these protocols plug into existing infrastructure that others provide in order to offer a DeFi lego of yield optimisation.

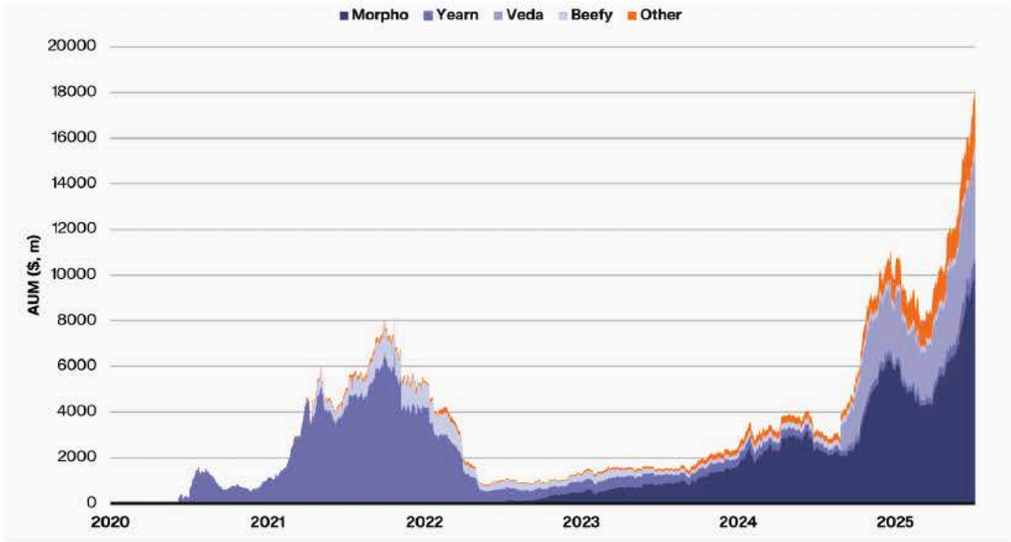
II. History and Evolution of Automated Onchain Yield Strategies

Automated onchain yield strategies emerged during the 2020 'DeFi Summer' when protocols like Yearn Finance pioneered automated yield aggregation across lending markets and liquidity pools. Instead of users manually moving capital between Aave, Compound, or Uniswap to chase the highest rates, Yearn vaults encoded these strategies into smart contracts, reallocating funds programmatically. This marked the first time that fund-like structures operated natively onchain, accessible to anyone with a wallet, no intermediaries required. Beefy and others quickly followed, extending the model across multiple chains and ecosystems, building an early template for passive yield products.

The model matured as infrastructure deepened, with vaults growing to become composable building blocks, integrated directly into lending protocols, DEXs, and later real-world asset pools. Passive strategies went from opportunistic farming to more predictable allocations into stablecoin lending, liquid staking derivatives, and even tokenised treasuries. We then saw a wave of 'DeFi 2.0' protocols that built on the predecessors innovations, with aggregation layers like Morpho and Sommelier pushing the design further, optimising routing between protocols to maximise net yield and reduce risk through adaptive vault structures. Today, automated onchain yield strategies represent one of the most established pillars of onchain asset management with its transparent, programmatic, and increasingly institutionalised nature.

III. Shifting Dominance; The AUM Growth of Automated Onchain Yield Strategies

Automated Onchain Yield Strategies AUM by Protocol
2020 - 2025



Source: DeFiLlama, Keyrock Intelligence

Automated onchain yield strategies have seen a striking resurgence in 2025, with aggregate AUM now at **~$17.5 billion**, eclipsing the highs of 2021. What differentiates this cycle from the past is that growth is no longer primarily incentive-driven but anchored in infrastructure maturity and allocator demand for stablecoin yield. The adoption of ERC-4626, the rise of curator frameworks, and the ability to treat vault tokens as collateral have transformed these products from experimental vaults into durable building blocks of onchain finance.

The primary driver of growth in this strategy has been Morpho, a protocol that's emerged as a clear leader with **~$9.6 billion** in AUM. Yearn remains a significant contributor at around **$750 million**, leveraging its track record, while a long tail of protocols like Beefy and Veda capture niche segments.

IV. Comparing Onchain Yield Strategies to Traditional Finance Counterparts

Throughout this report, we will make comparisons between onchain strategies and traditional finance offerings. What's important to note here is that the nature of the rails on which these products are built means we aren't able to make direct comparisons. At no point are we comparing apples to apples, though in drawing similarities between select strategies, we're able to better frame the advantages and drawbacks of onchain asset management strategies to existing traditional offerings. Specifically, this will allow us to evaluate risk, returns, liquidity and fees in a familiar, but not identical, frame.

In doing so, we choose comparators based on each strategy's:

1. **Economic Function:** What the strategy is designed to achieve from an economic perspective.

2. **Risk Profile:** The market(s) in which the strategy operates, the duration of the strategy, and any credit or leverage considerations.

3. **Cash-Flow Mechanics:** How yield is generated and paid to the investors.

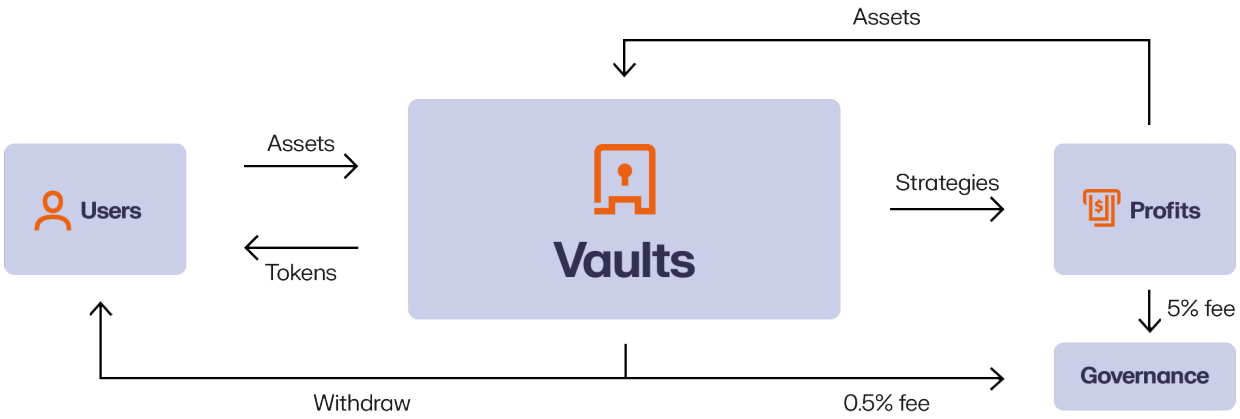
4. **Liquidity:** The capacity of strategies, and any lock-up considerations associated.

Where an onchain strategy is novel, as is the case with the majority of the strategies we assess, we explicitly note the gaps by pairing the strategy with a primary comparator, the best fit for purpose equivalent, and a secondary comparator, to bracket the differences in risk or structure.

The intent here is clarity, as opposed to direct equivalence. Onchain strategies inherently carry properties, such as programmability, composability, and real-time transparency, that do not exist in most traditional finance wrappers. Conversely, traditional vehicles offer far greater liquidity, scale, and regulatory oversight.

To ground this strategy sub-sector, we note again that automated onchain yield strategies are the foundational layer of onchain asset management, designed to generate steady, low-risk returns. Their primary goals are to preserve capital, offer near-instant liquidity, and generate modest but reliable yield.

Onchain vaults typically generate yield from lending stablecoins into money markets, staking liquid assets like stETH, or strategies derived from these, such as leveraged looping, with rewards compounding programmatically. In contrast, their traditional finance equivalents, that we explore below, derive yield from instruments like Treasury bills, commercial paper, and repurchase agreements.



Source: Yearn Finance

To select the fairest comparators, we considered a range of short-term yield products in traditional finance, including Cash & Short-Duration Fixed Income funds (SDFIs), Money Market Funds (MMFs) and ultra-short duration bond ETFs (USDBs). Each of the strategies mentioned share some overlap in mandate and cash-flow mechanics, but they differ in risk profile and yield potential compared to onchain vaults.

Potential Comparator	Comparative Relevance	Comparative Shortcomings	Overall Suitability
Cash & Short-Duration Fixed Income Funds (SDFIs)	Seeks low-risk yield from short-term lending and high-grade bonds, similar to stablecoin lending.	Traditional assets, not programmable.	Primary comparator
Money Market Funds (MMFs)	Daily liquidity, capital preservation mandate.	Traditional assets, settlement dynamics, e.g. T+2 versus instant onchain.	Secondary comparator
Ultra-Short Duration Bond ETFs (USDBs)	Balances liquidity with modest yield in a transparent structure.	Traditional assets, settlement dynamics, lack of composability.	Reasonable comparator

Arguably, the closest traditional finance equivalent strategy to automated yield strategies is SDFIs. Fundamentally, the purpose of both strategies is the same, and that's to deliver low-risk yield on idle capital, thus making this the best benchmark. Automated onchain vaults achieve this goal by deploying capital to stablecoins in lending markets, liquid staking, or short-duration onchain credit. Fixed income funds do so through government Treasuries, short-term corporate debt instruments such as commercial paper, or secured financing transactions like repurchase agreements.

Both products serve as a base layer for portfolios, designed for capital preservation while generating steady income. Perhaps the strongest parallels though, are on risk profile and cash-flow, with both strategies being low duration, low credit risk and allowing for frequent reinvestment. Liquidity is also similar across the strategies, with both offering rapid, relative to their structural limits, redemptions, with SDFIs offering T+1, relative to monthly or quarterly for other strategies. Of course, there are distinct differences, particularly when it comes to risk, with onchain offering additional risks such as smart contract risk and de-peg risk on derivative assets.

As a secondary comparator, money market funds are a close equivalent, in which again, we see ultra-low risk and daily liquidity. Throughout this report we opt to use SDFIs in combination with MMFs as an equivalent to onchain automated strategies. This is because MMFs introduce the lower end of the risk spectrum, which automated vaults can resemble in function. Of course MMFs are not a perfect comparison, with the key caveat here being risk. MMFs are tightly regulated and nearly risk-free, while onchain vaults carry smart contract, asset and custody risks.

The combination of SDFIs and MMFs will be compared with automated onchain strategies by leveraging weighted averages for fee and performance comparisons, in conjunction with qualitative assessment.

V. Benefits and Drawbacks of Automated Onchain Yield Strategies Relative to Traditional Finance Counterparts

Onchain execution of automated strategies offers a series of unique advantages that differentiate them from their traditional finance counterparts. The obvious benefit is accessibility, in that passive DeFi vaults are permissionless and globally available, with no minimum investment size beyond gas costs. This means anyone with an internet connection is able to spin up a wallet and deposit funds into these strategies, without the necessity of third-party account set-ups and approvals.

This also works when exiting these strategies. Liquidity is instant, as deposits and withdrawals can be executed in real time, with vault tokens updating immediately to reflect accrued yield. Should an allocator wish to switch strategies, or liquidate funds, there's no delay or lock-up period associated. What ties into this is another benefit of onchain rails, transparency. Transparency is also radically different onchain to traditional finance, with every allocation, performance metric, and underlying asset visible onchain, updated block by block, in stark contrast to the closed ledgers of traditional funds.

Beyond accessibility and transparency, the programmability of onchain vaults allows strategies to be encoded directly into smart contracts. This removes the need for active oversight or intermediaries, and ensures that capital can flow automatically into the most competitive venues. For depositors, this delivers efficiency and consistency, while for protocols it significantly reduces costs compared to traditional funds that require teams of managers to oversee asset selection, performance monitoring, and infrastructure maintenance.

Composability adds another dimension to these strategies, making vault tokens powerful building blocks within the broader DeFi ecosystem. Tokens representing passive positions can be rehypothecated into lending protocols, staked as collateral, or paired in liquidity pools, creating a yield-on-yield dynamic that is structurally more complex and laborious in traditional markets. This layering effect extends the impact of liquidity and has been one of the core innovations driving the growth of automated DeFi vaults year to date.

Recent onchain technical innovations have further strengthened these advantages. The ERC-4626 standard has introduced plug-and-play composability for yield-bearing vaults, while adaptive routing layers such as Morpho have enhanced efficiency and safety by dynamically matching lenders and borrowers. Taken together, these developments highlight how onchain strategies can compete with traditional structures through technical innovation by enabling value-adding product features that prove complex in the bureaucratic traditional finance architecture.

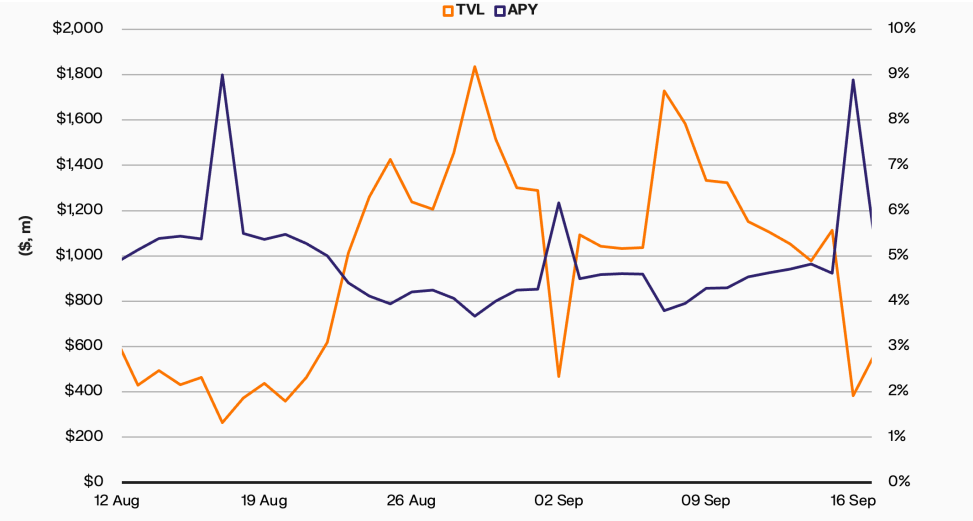
While we have explored the benefits of onchain execution of automated strategies, given the nascency of the industry, there remain core drawbacks relative to its traditional finance counterparts. One of the primary risks cited often by those criticising the onchain DeFi industry is smart contract and infrastructure risk. Specific to automated strategies, this applies to the smart contracts to which the vaults deposit capital to, that can be exploited, and to a lesser extent malfunction. These vaults will deposit capital to smart contracts that if not properly audited, become honeypots of capital for malicious actors. A recent example of this is Yearn Finance's exploit in July 2024, in which Yearn's DAI v1 vault lost $11 million as a result of a complex attack in which the hacker sent 160 nested transactions that resulted in extraction funds. Traditional finance equivalents have the benefit of decades of operational history, and layers of heavily regulated protection through established custodians that prevents such exploits.

On the adoption side, onchain strategies are capacity constrained by the size of the underlying markets to which they can deposit to generate yield. While core lending markets, for example, have managed to accumulate tens of billions of dollars worth of capital, outside of the top 25 markets by AUM we see capacity rapidly drop off from the $1 billion mark. This, of course, is an issue traditional finance doesn't face, particularly for passive strategies, though the trend of capital influx onchain is rapidly addressing this issue.

Another drawback is the yield volatility, and the predictability issues that arise from this. Yields in DeFi lending and staking are highly variable, often at the whim of market sentiment. Yields are typically higher onchain than for passive offchain strategies, but the threat of sudden inflows or outflows of capital degrading yield causes issues for investors in onchain automated strategies. An example of this is the USDT pool on Aave's Ethereum implementation, where huge AUM spikes in recent months have seen yields fluctuate between ~3% and ~9%. Short-term fixed income products often used in passive, low-risk traditional finance strategies typically offer more predictable returns tied to central bank policy rates.

USDT Pool on Aave Ethereum

August 2025 - September 2025



Source: DeFiLlama, Keyrock Intelligence

Remaining on the theme of volatility, onchain automated strategies often interact with lending markets that accept highly volatile collateral that can be liquidated in stress scenarios, with the potential for the introduction of systemic risk. Passive strategies in traditional finance are generally the opposite of this, with lending typically conducted against government securities and similar stable assets with well-defined credit ratings.

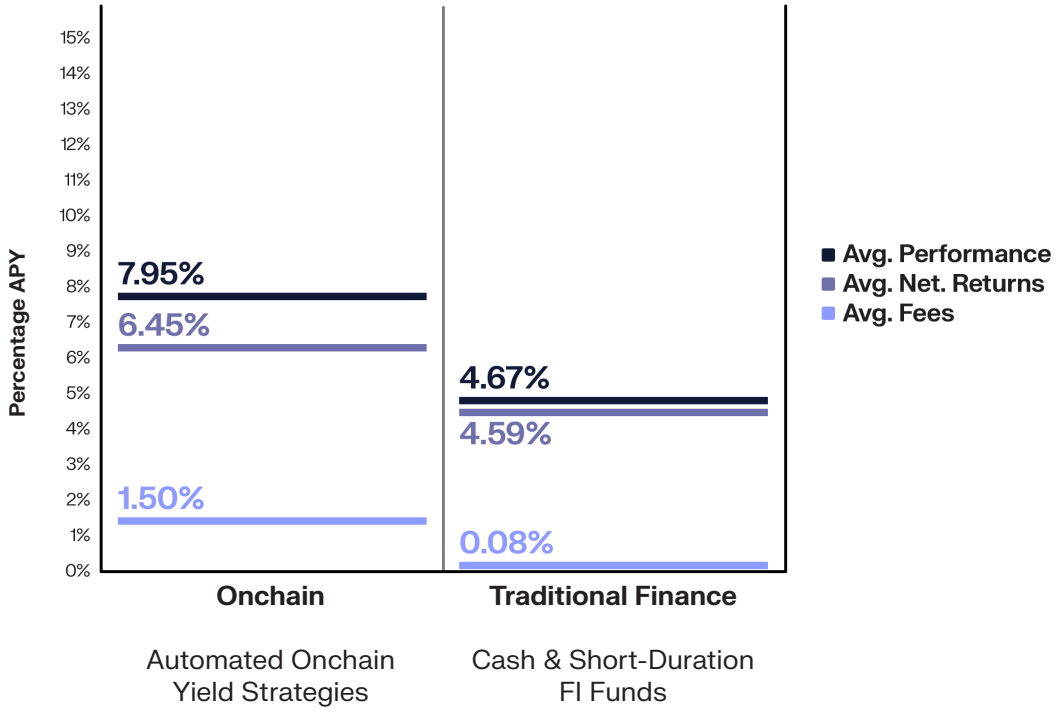
Aside from product drawbacks, we then have the reputational risks associated with depositing to all onchain asset management strategies, stemming from a regulatory uncertainty. Automated vaults in particular operate in a regulatory grey area. Despite major regulatory progress in the US, including SEC clarification that staked assets are not securities, which is particularly relevant given their prominence in automated onchain strategies, there are next to no investor protections or deposit insurances onchain. This is where allocators can participate in traditional finance with peace of mind, given they're regulated, insured in some jurisdictions, and have transparent reporting standards.

VI. Automated Onchain Yield Strategies Fees and Performance

As mentioned in our previous sections, when comparing onchain automated yield strategies to traditional finance, we've opted to compare to Cash & Short-Duration Fixed Income Funds and Money Market Funds as the most similar traditional strategies.

Automated Onchain Yield Strategies

Average Performance & Fee Comparison



Source: Yearn Finance, Franklin Templeton Short-Term Bond Funds, Vanguard's Ultra-Short Bond ETFs, Sterling Capital Short Duration Bond Fund,

Automated onchain yield strategies delivered an average gross **APY of 7.95%**, above the **4.67%** seen in the traditional finance peer group. Note in the following analysis all performance and fee data is calculated on a weighted-average basis within their relative verticals. Our analysis looked at a range of Yearn vaults, including USDS, USDC, and DAI, which collectively hold under **$70 million** in assets and generated mid-to-high single-digit returns, peaking at **8.44%** in the USDC vault. By contrast, the traditional funds we use as benchmarks, a money market fund and two short-duration bond ETFs, operate at a completely different scale. The Vanguard Federal Money Market Fund alone manages over **$360 billion**, while the iShares 1–5 Year Investment Grade Corporate Bond ETF exceeds **$21 billion**. The relative yields reflect these contexts in that DeFi vaults benefit from higher baseline lending rates and efficient programmatic reinvestment, while TradFi products remain capped by central bank policy rates and the inherent drag of legacy settlement systems.

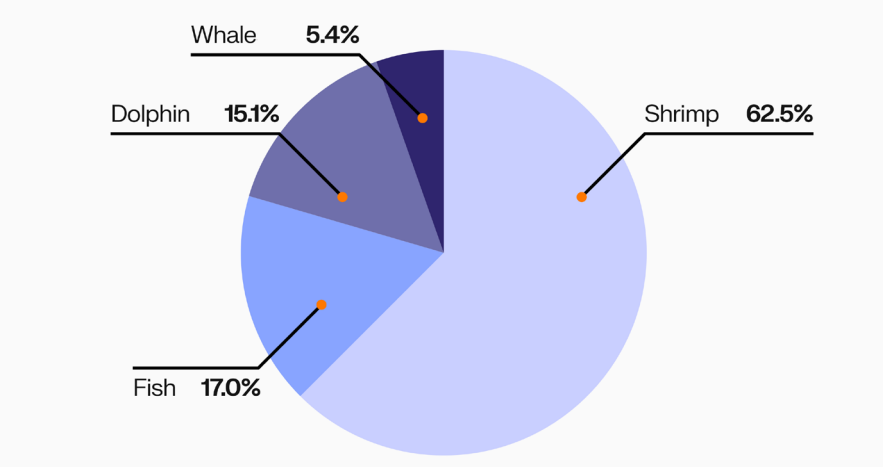
Fees remain a headwind for onchain passive strategies. The average cost of DeFi vaults is **1.50%**, a reflection of layered management, withdrawal, and operational charges for capital deployment across protocols. Traditional products, by comparison, run on razor-thin margins with the Vanguard money market fund charges **0.11%**, while the SPDR and iShares ETFs have gross expense ratios of just **0.04%** and **0.07%** respectively, for an average of **0.08%**. The sheer scale of these funds, measured in tens to hundreds of billions of dollars, enables cost efficiencies that DeFi cannot yet replicate. In effect, investors in DeFi are paying a premium for access to higher yields, global permissionless infrastructure, and composability.

Even accounting for higher fees, onchain vaults retain a performance edge. Net yields averaged **6.45%** across the Yearn vault sample, compared to **4.59%** across the traditional benchmarks, a spread of roughly **186bps**. This suggests that while DeFi is still niche in terms of scale, allocators are compensated with structurally higher returns. The forward-looking question is how this dynamic evolves. Traditional rates may drift upward, narrowing the spread, while DeFi fees are likely to compress as competition intensifies and larger allocators demand institutional terms. For now, however, onchain passive vaults remain compelling as high-yield, transparent, and programmable alternatives to some of the largest but lowest-cost funds in traditional finance.

VII. Allocator Profiles to Automated Onchain Yield Strategies

Given the simplicity of automated onchain yield strategies, and the nature of their origination within the early wave of DeFi, the majority remain permissionless, and with low deposit thresholds. The result is that a large segment of their depositor count, **63%** to be specific, is retail, defined as addresses with deposits under **$10k**. These users represent the long-tail of DeFi users seeking passive yield.

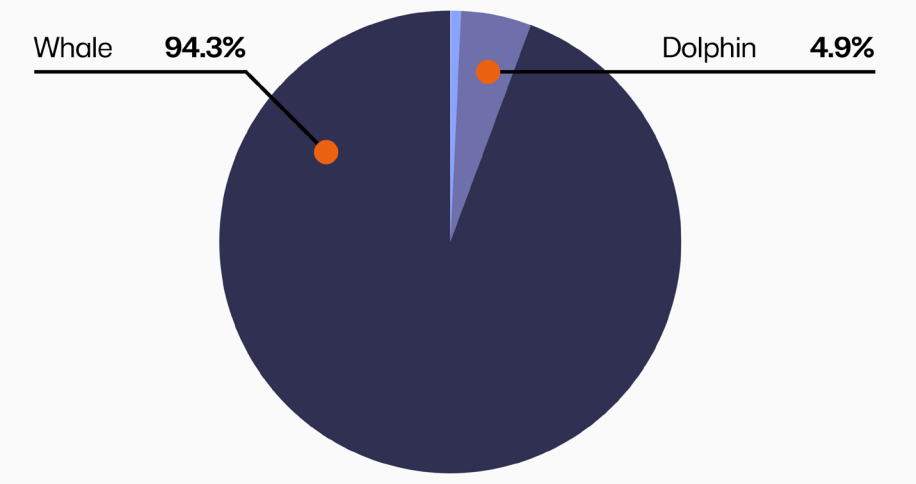
Automated Onchain Yield Strategies: Depositor Count



Source: Dune Analytics, Keyrock Intelligence

That said, these retail depositors account for only **6 bps** of the capital supplied to onchain passive strategies. Instead, from a capital supplied perspective, a far better measure of the allocators to this strategy, onchain passive strategies are dominated by large players. Whales and Dolphins, defined as those supplying over **$1 million** per transaction and **$100k-$1 million** per transaction respectively, account for **99.2%** of capital in these strategies. This represents the emerging trend of institutional allocators within automated onchain yield strategies, with allocators typically being crypto-native funds and family offices experimenting with permissionless yield strategies at scale.

Automated Onchain Yield Strategies: Supply Amount



Source: Dune Analytics, Keyrock Intelligence

VIII. Catalysts for Automated Onchain Yield Strategies Growth

The future catalyst for automated onchain yield strategies stems from standardisation and adoption at scale. ERC-4626 has transformed vaults from siloed strategies into composable building blocks, enabling funds-of-funds and treasury managers to plug into them with minimal friction. DAO treasuries such as MakerDAO, Frax, and others have become core depositors that have led the growth to date, and we expect this to continue. This programmatic flow provides predictable, sticky inflows that compound over time.

Stablecoin and liquid staking integrations are another driver. Vaults now package stETH, cbETH, and tokenised T-bills, producing yields that are competitive with traditional markets while retaining instant liquidity. This has broadened the allocator base beyond yield-chasing retail into more risk-averse institutions looking for transparent, dollar-denominated products.

User experience, long a bottleneck, is also being addressed. EY's Digital Assets in the Mainstream survey (2024) found 51% of non-DeFi investors cited lack of expertise as their top barrier, but vault UX has improved drastically since the first Yearn vault deployment. Aggregators like Morpho and Sommelier abstract away complexity, letting allocators treat passive vaults more like digital ETFs than experimental protocols. As interfaces converge on simplicity, automated onchain yield strategies are positioned as one of the most accessible gateways for new capital entering onchain markets.

yearn

Founded in the heat of DeFi summer in 2020, Yearn is one of the earliest and established DeFi protocols, particularly within the onchain asset management industry. At its core, Yearn automates yield generation through vaults that allocate deposits across multiple DeFi strategies. Yearn plays a dual-role within our framework, in that the vaults are operated by the protocol itself, as opposed to by curators. Unlike some other protocols in onchain asset management, Yearn remains fully permissionless, and operates in a pure DeFi-native manner.

To this end, Yearn refers to itself as the backend yield layer for DeFi, a product that curators of strategies, particularly discretionary strategies, can leverage, "Yearn has always seen itself as the backend yield layer of DeFi. If a wallet, DAO, or Traditional Finance product needs yield exposure, we want them to plug into us permissionlessly."

Yearn's particularly important to the onchain asset management landscape in that it pioneered the concept of automated passive strategies. This is through the pivotal role it played in designing and developing the ERC-4626 vault token standard that's leveraged by the majority of onchain asset management protocols today. The standard unlocks composability and reduces integration costs for all of DeFi.

> *"Standards like ERC-4626 aren't just technical conveniences, they're what make institutional-scale integration possible. You can't have onchain asset management without safe, composable vaults."*
>
> — Corn, Head of Business Development, Yearn Finance

Beyond standardisation, Yearn also demonstrated the power of composability in practice. By aligning its vault architecture with ERC-4626, Yearn ensured that vault tokens could plug into other parts of the DeFi stack, from money markets like Aave to liquidity venues like Curve. This turned Yearn vaults into building blocks that could simultaneously serve as collateral elsewhere, be rehypothecated, or integrated into more complex strategies. This creates the yield-on-yield effect that's core to onchain asset management's key value add.

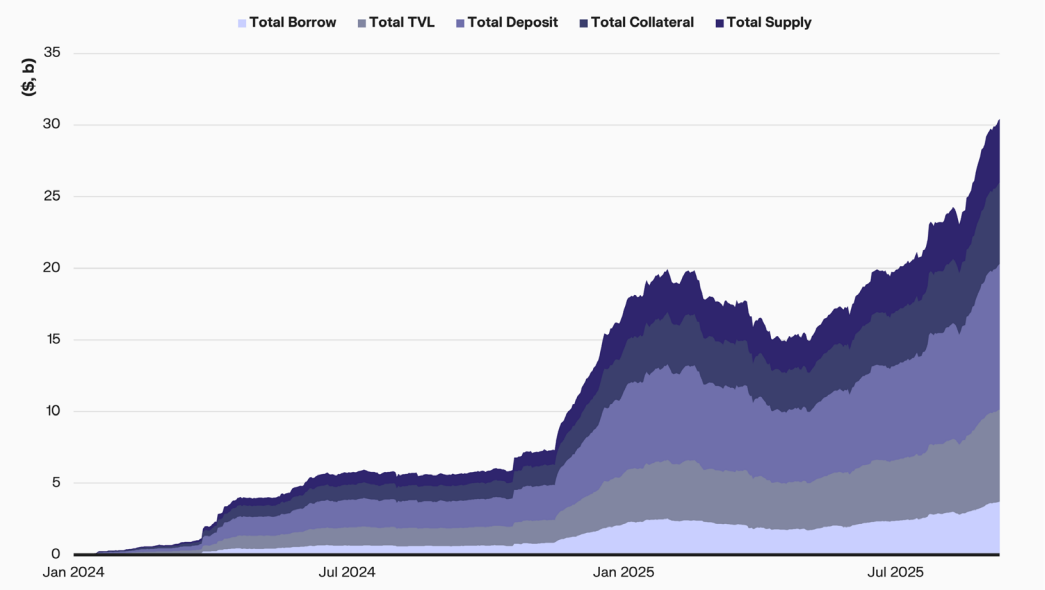
Yearn have stated they believe the next step to improve onchain asset management is to bolster UX upgrades, including showing APY impact before deposit, auto-harvesting options and transparency into rebalancing activity. While this information is, for the most part, available onchain, Yearn believes that the bridge between those uneducated in onchain forensic analysis and gaining transparency insights is to bolster UI, "the bridge between DeFi-native transparency and mainstream usability is UX. Everything is already visible onchain, the job now is surfacing it in ways allocators and users actually understand." This is believed to be a core improvement required to harness the inherent benefits of onchain strategies.

Morpho

Morpho, one of the core onchain asset management infrastructure protocols, is a decentralised lending and vault infrastructure protocol comprised of Morpho markets, permissionless lending pools, and Morpho Vaults, curated investment strategies. Morpho is a protocol that's built on Yearn's early DeFi innovations to become the largest vault infrastructure onchain today.

Looking at Morpho's fundamentals growth, we can see they've exhibited near-continuous growth since inception in 2024, pushing to new ATHs of over **$9.4 billion** in recent weeks. This growth, albeit with a minor pullback in H1 2025, demonstrates sustained demand for both passive vaults and lending markets, even through periods of wider market volatility.

Morpho: Assets Under Management



Source: Dune Analytics, @morpho

Morpho functions as a dual-role platform, in which it houses both a base-layer infrastructure for lending and borrowing, and as a distribution layer for passive vault strategies. It's the latter that we're primarily focusing on in this report. It also features a fully permissionless design, allowing anyone to spin up a market or vault with their chosen collateral, oracle, and parameters, making it one of the most flexible frameworks in DeFi.

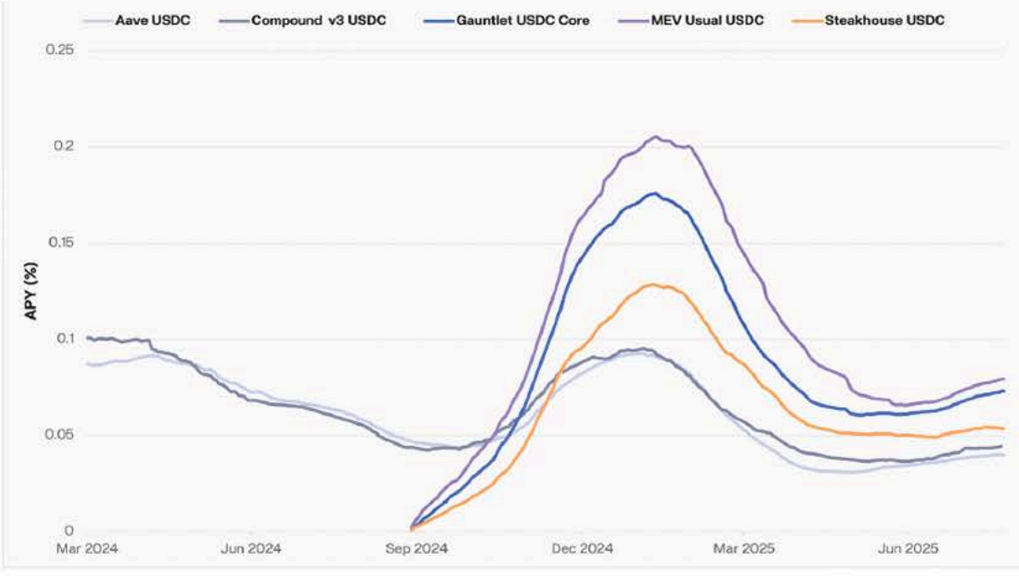
Morpho was the pioneer of the concept of a 'curator', which is akin to onchain asset managers, who design and manage vault strategies deployed to the Morpho platform. In automated strategy fashion, Morpho vaults provide investors with 'set-and-forget' products, while it's the curators who handle asset allocation and risk management.

Simon Crotty of Morpho Labs noted, “Curators are like the fund managers of DeFi. They’re the ones designing risk frameworks, allocations, and strategy, while Morpho provides the rails to deploy them permissionlessly.”

Morpho doesn't position itself as a managed product like Aave or Compound but as permissionless infrastructure that creates an open marketplace for passive strategies. As noted by Simon Crotty, Head of Markets at Morpho, "Morpho doesn't aim to manage risk itself, but rather enables others to curate strategies".

This frame is crucial as it positions Morpho as a enabler of passive strategies rather than the manager of them. Ultimately the outperformance reflects the ability of the vault curators to dynamically allocate liquidity, while optimizing for MEV rebates and incentive schemes, versus the entirely static allocation to lending protocols.

Morpho USDC-Based Vault APY Comparison



Source: Dune Analytics, @morpho

Morpho’s Vaults V2 implementation marks a shift from incremental optimisation to becoming genuine infrastructure for institutional allocators. The upgrade focuses on modularity, allowing curators to design bespoke strategies that can draw from multiple lending markets at once, reducing fragmentation and improving capital efficiency. Risk frameworks have also been overhauled from V1, introducing more granular collateral parameters and automated circuit breakers that make vaults more resilient under stress. The user experience has also been redesigned with institutions in mind, lowering the friction for DAOs or treasuries to launch strategies without needing to fork existing infrastructure.

Taken together, these changes position Morpho as a neutral fund infrastructure layer, as opposed to merely a yield optimiser.

4.

Discretionary Onchain Strategies

I. Defining Discretionary Onchain Strategies

While automated strategies leverage onchain financial instruments through pre-determined, static rules, and generally offer a more vanilla strategy, discretionary onchain strategies take this a step further by allowing for dynamic strategy adjustments. These are strategies in which portfolio allocation and risk management decisions are made by human managers in real time, often supported by quantitative models or semi-automated execution. Active management practices rotate between lending markets, liquidity pools, derivatives venues, and cross-chain opportunities at the discretion of individuals or systems that lay offchain, to capture idiosyncratic yield or hedge risk dynamically. These vaults combine discretionary oversight with onchain transparency, positioning them as crypto-native equivalents of hedge funds, but operating entirely on programmable, auditable rails.

In practice, discretionary onchain strategies sit across multiple layers of the stack at once, inherently spanning on and offchain. Managers deploy into money markets such as Aave or Morpho, trade through DEXs and perpetuals venues like Uniswap, GMX, or Aevo, and increasingly integrate with yield tokenisation platforms such as Pendle. Cross-chain execution has also become more common, much more so than in automated strategies, given this offchain intervention. These strategies rely heavily on analytics dashboards, bots, and private relays to protect execution quality, with discretionary calls from the manager guiding allocation shifts on top of the automated plumbing.

II. History and Evolution of Discretionary Onchain Strategies

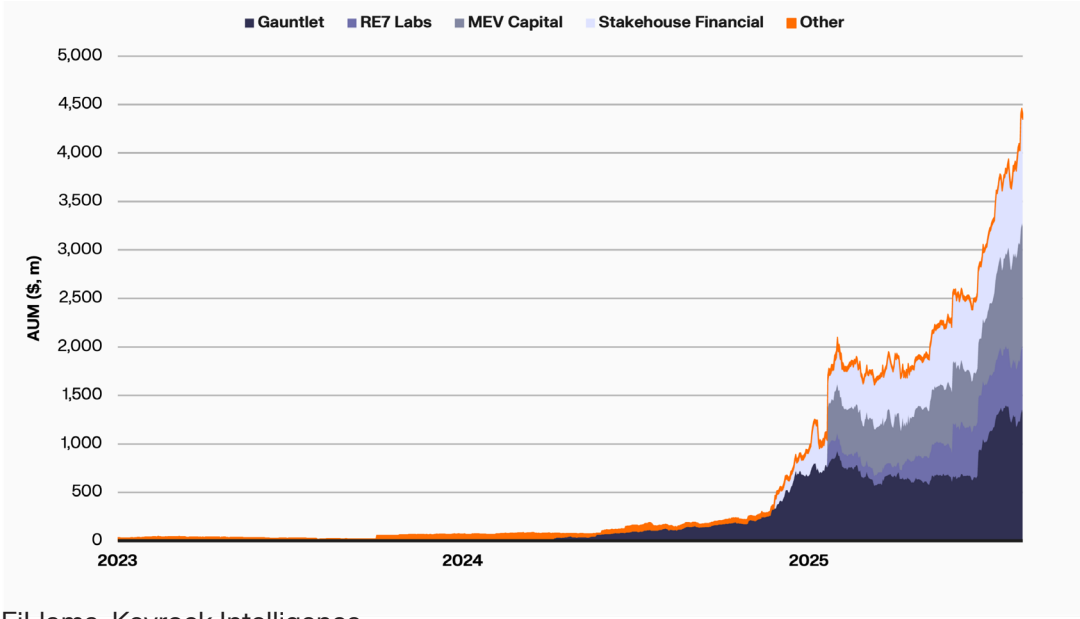
The roots of discretionary onchain strategies lie in the earliest experiments with discretionary management layered on top of automated protocols. In the immediate aftermath of DeFi Summer, most onchain capital chased programmatic yield strategies, as aforementioned, with lending on Aave, farming on Compound, or pooling liquidity on Uniswap. It did however, become abundantly clear that the real opportunities were more dynamic than this vanilla, and at the time limited, way of managing capital. Funding rates swung widely, and with new protocols launching in quick succession, particularly cross-chain, the onchain asset management capabilities couldn't keep up. This environment gave rise to the active manager, combining discretionary judgement with onchain execution, able to leverage traditional finance reputations and trust with a peaking interest in the immense alpha being generated onchain.

The strategy sector matured to what we would refer to as 'graduation status', in which it saw growth rates that had been seen in automated strategies, but to date had previously escaped discretionary onchain strategies, once risk frameworks and execution tools improved. Managers like Re7 and MEV Capital codified their approaches into branded vaults, blending discretionary calls with automated infrastructure to deliver consistent returns. These vaults began to attract not just retail but DAOs and institutions, drawn to the combination of professional reputation and oversight and real-time onchain visibility. Improved MEV protection, better cross-chain routing, and the emergence of portfolio analytics dashboards gave allocators confidence that active managers could operate at scale without exposing them to unacceptable operational risks.

Today, discretionary onchain strategies sit at the frontier of onchain asset management, and we'd argue is primed to onboard arguably the majority of capital into DeFi through its deep ties to institutional capital.

III. Recent Explosion: The AUM Growth of Discretionary Onchain Strategies

Discretionary Onchain Strategies AUM by Protocol
2023 - 2025



Source: DeFiLlama, Keyrock Intelligence

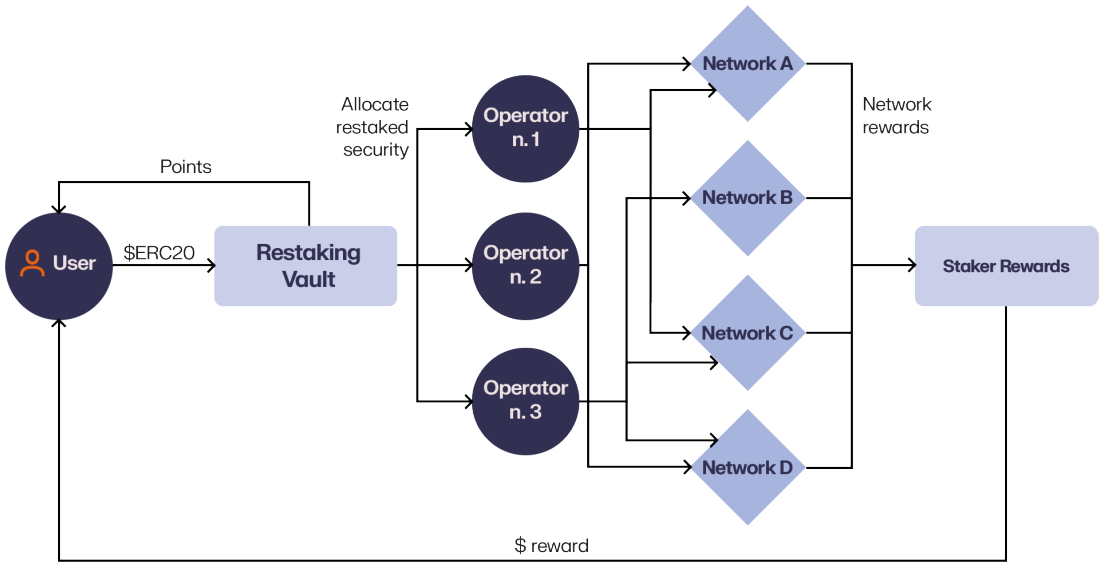
Discretionary onchain strategies have truly exploded in 2025, with aggregate AUM climbing to nearly **$4.5 billion** after years of relative dormancy. The sharp growth this year reflects two converging dynamics, the first being that allocators are seeking hedge-fund-like exposure without the traditional 2/20 fee drag, and the second being the maturation of firms professionalising active management onchain.

Leadership has consolidated quickly around a handful of names. Gauntlet and RE7 Labs are carving out institutional niches with multi-strategy approaches, while MEV Capital has leaned heavily into execution advantages unique to DeFi, particularly around MEV capture and order flow. Stakehouse Financial adds a layer of discretionary credit and structured products, creating hybrid offerings.

IV. Comparing Discretionary Onchain Strategies to Traditional Finance Counterparts

Discretionary onchain strategies represent actively managed vaults where offchain input from curators, those making decisions on how to allocate capital, guides execution, rather than entirely onchain, smart contract-driven, hard-coded logic. The aim of discretionary strategies is to deliver alpha through active positioning across networks, protocols, strategies and assets. Allocators to these strategy types are typically DAO Treasuries, institutions or HNWIs.

Onchain, the strategies leveraged to generate alpha can include capturing spreads in funding, MEV, which can be thought of as exploiting the ordering of transactions for economic gain, or basis opportunities unavailable to passive vaults. In principle, this is no different from discretionary hedge funds in traditional finance, which similarly seek to monetise market or structural inefficiencies, whether through tactical asset allocation, directional macro trades, relative value spreads, or event-driven plays. The key distinction is in the context, whereby onchain managers exploit operational and structural inefficiencies unique to blockchain execution, such as composability and MEV, while traditional hedge funds draw more heavily on economic cycles and cross-asset pricing dislocations. Where inefficiencies differ, it is usually because of differences in market structure, for instance, front-running is outlawed in traditional finance but persists onchain in the form of MEV.



Source: Gauntlet

For discretionary strategies, the mapping is slightly more straightforward, in that traditional finance offers some clear-cut discretionary strategies, such as actively managed hedge fund strategies. We compare three flavours of these strategies as potential comparators, namely Global Macro Hedge Funds (GMHFs), Multi-Strategy Hedge Funds (MSHFs) and Quant or Arbitrage Hedge Funds (AHFs).

Potential Comparator	Comparative Relevance	Comparative Shortcomings	Overall Suitability
Global Macro Hedge Funds (GMHFs)	Active managers shifting allocations across assets, rates, and strategies.	Broader mandate such as macro markets, FX and commodities, vs. narrower onchain focus.	Primary comparator
Multi-Strategy Hedge Funds (MSHFs)	Multiple alpha sources, manager discretion, risk-adjusted returns.	Diversified across more asset classes.	Secondary comparator
Quant or Arbitrage Hedge Funds (AHFs)	Systematic, capture funding spreads, arb inefficiencies.	Heavily model-driven with high-frequency adjustments.	Adds nuance, but not a close comparator.

The primary comparator to discretionary onchain strategies chosen is GMHFs, given both represent discretionary, opportunistic, active allocation strategies. To this end, the process for both is tactical rotation of capital based on market conditions, with primary return drivers being portfolio manager edge and timing advantages. The standout difference in these strategies however, is liquidity, in which GMHFs are often gated with quarterly liquidity, while onchain discretionary strategies typically offer near-instant liquidity, but are capacity-limited. Beyond liquidity, discretionary onchain strategies provide allocators with real-time transparency into positions and performance. Portfolio data updates block-by-block onchain, offering a level of granularity and immediacy that contrasts sharply with the monthly or quarterly reporting cycles typical of hedge funds.

MSHFs are another close comparator, reflecting diversified alpha approaches similar to those seen in onchain discretionary approaches. MSHFs are very similar to GMHFs as well, in that we see manager discretion, and a focus on risk-adjusted returns. The only slight caveat here is that MSHFs operate across multiple asset classes, while discretionary vaults are still mostly confined to digital markets, although the breadth of digital asset class coverage is expanding.

The combination of GMHFs and MSHFs will be compared with discretionary onchain strategies by leveraging weighted averages for fee and performance comparisons, in conjunction with qualitative assessment.

V. Benefits and Drawbacks of Discretionary Onchain Strategies Relative to Traditional Finance Counterparts

Discretionary onchain strategies inherit many of the inherent advantages of operating onchain while offering distinct improvements over traditional hedge funds. Withdrawal flexibility is one of the most significant, with investors able to redeem capital near-instantly at will, in contrast to the rigid lock-ups that define much of the hedge fund industry, typically following monthly or quarterly lock-ups. This flexibility is underpinned by the same permissionless rails that support automated strategies, ensuring access and liquidity without the need for intermediaries.

Efficiency also stands out as a defining characteristic. Managers can shift capital between protocols in minutes, settle transactions instantly, and provide live reporting on positions. Strategies that in traditional markets might take weeks to execute and reconcile can be completed atomically, with full transparency and auditability onchain. For allocators, this translates into daily liquidity and real-time visibility into risk exposures.

Fee structures further highlight the divergence. Onchain, managers typically adopt flatter models, often charging only performance fees. Smart contract automation strips out much of the operational overhead, eliminating the need for layers of intermediaries and administration that justify management fees in traditional funds. This means that allocators face lower costs and fewer fee burdens, while still gaining exposure to discretionary management. That said, there is a clear tradeoff between speed of execution, and strategy protection that we'll touch on later in the report.

Perhaps most compelling is the composability enabled by onchain infrastructure. Discretionary managers can combine protocols and assets in ways that are structurally more complex offchain, borrowing in one venue, hedging in another, and pooling liquidity in a third, all without introducing custody chains or counterparty risk. This modular toolkit allows exposures to be built in days that would take months to structure in traditional finance. The result is a uniquely hybrid model, where human judgment and programmable infrastructure reinforce one another to deliver a new, more agile form of discretionary management.

Discretionary strategies deployed onchain have many benefits over equivalent traditional finance strategies, though it's important to note that we are not comparing apples to apples here, and as such, the onchain strategies have distinct drawbacks. As mentioned in onchain passive strategies, the primary risk most often cited is that of operational and smart contract risk. For discretionary strategies, this includes both the smart contracts of the underlying onchain strategies, and the smart contracts responsible for execution and protocol integrations, which can be exploited or fail. Hedge funds on the other hand benefit from institutional-grade infrastructure, prime brokers, custodians and compliance frameworks. In this sense, the very structure that we argue makes traditional strategies inefficient and slow protects the strategies via prudent operational processes.

We also see capacity constraints in discretionary onchain strategies, with strategies often having to implement TVL caps due to liquidity fragmentation across DeFi markets, or liquidity thinness that if challenged would compress returns. It's worth noting, however, that discretionary strategies have advantages over passive onchain strategies here, in that they can generally deploy capital across networks, protocols and assets to manually access a broader range of yield opportunities. It goes without saying here that hedge funds can scale capital deployment into trillion-dollar markets without the same bottlenecks.

One product-specific risk aspect for onchain discretionary strategies that's improving, but still exists, is the risk management tools deployed. We're seeing risk management improvements through the use of offchain monitoring bots that are capable of complex risk mitigation procedures such as circuit-break strategies in the event of asset de-pegs and the simulation of incoming transactions ahead of time to identify exploits and hacks. However, the risk management tools deployed by discretionary strategies remain rudimentary compared to hedge funds' use of sophisticated risk models, hedging instruments and compliance oversight. This is largely due to the fact that the hedge fund industry is a different beast to onchain discretionary strategies as they exist today, with customers paying millions in fees for hedge funds to employ armies of the brightest quants combined with millions of lines of systematic risk management code.

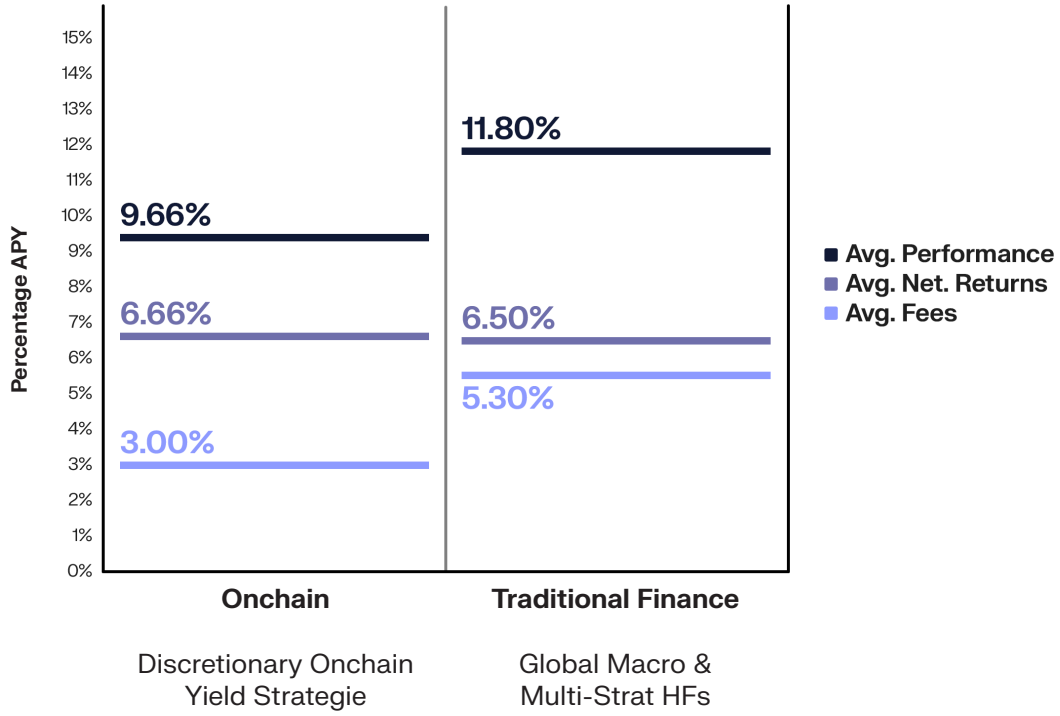
Of course, reputationally, discretionary strategies are limited by the same concerns that arise with all onchain strategies, such as a lack of regulatory and legal clarity that exists for hedge funds, operating within clear legal wrappers with fiduciary duties and investor recourse. This goes hand in hand with the fact that hedge funds have multi-decade track records and strong reputational capital that attracts institutions. That said, we are not comparing apples to apples, and onchain discretionary strategies are a new, innovative implementation that has the potential to gain trust with continued performance. All new innovations once lacked experience relative to their competitive products.

VI. Discretionary Onchain Yield Strategies Fees and Performance

As outlined earlier in this section, the closest parallels to onchain discretionary strategies are Global Macro Hedge Funds and Multi-Strategy Hedge Funds, which similarly rely on manager discretion to rotate capital across markets and exploit inefficiencies.

Discretionary Onchain Yield Strategies

Average Performance & Fee Comparison



Source: Morpho, U.S. Office of Financial Research

Onchain discretionary strategies delivered a weighted-average gross return of **9.66%**, compared with **11.80%** in the traditional hedge fund sample. Within DeFi, examples such as Gauntlet's eUSD Core and Smokehouse's USDT vault posted double-digit returns, while larger vehicles like MEV Capital's USDC strategy generated mid-to-high single-digit yields. Collectively these strategies remain modest in scale, with AUM under **$400 million** across the sample. By contrast, our traditional finance comparators operate at vastly greater scale, with Bridgewater's Pure Alpha II alone managing over **$76 billion,** while Blackstone's Alternative Multi-Strategy Fund holds nearly **$4 billion**. That these funds can still deliver high single- to low double-digit performance at such size underscores the operational depth and efficiency advantages of traditional hedge fund infrastructure.

Fees remain one of the sharpest contrasts. Onchain discretionary funds average **3.00%**, generally structured as pure performance-based compensation with fewer fixed layers. Hedge funds in traditional finance, by contrast, adhere more closely to the '2 and 20' model, with our sample showing an effective weighted-average fee load of **5.30%**. This reflects both management and incentive layers, as well as the higher operational overhead of running diversified, global mandates. Scale does not necessarily compress fees in traditional finance hedge funds the way it does in passive vehicles, but allocators often accept the trade-off given the track record, brand, and institutional processes attached to these funds.

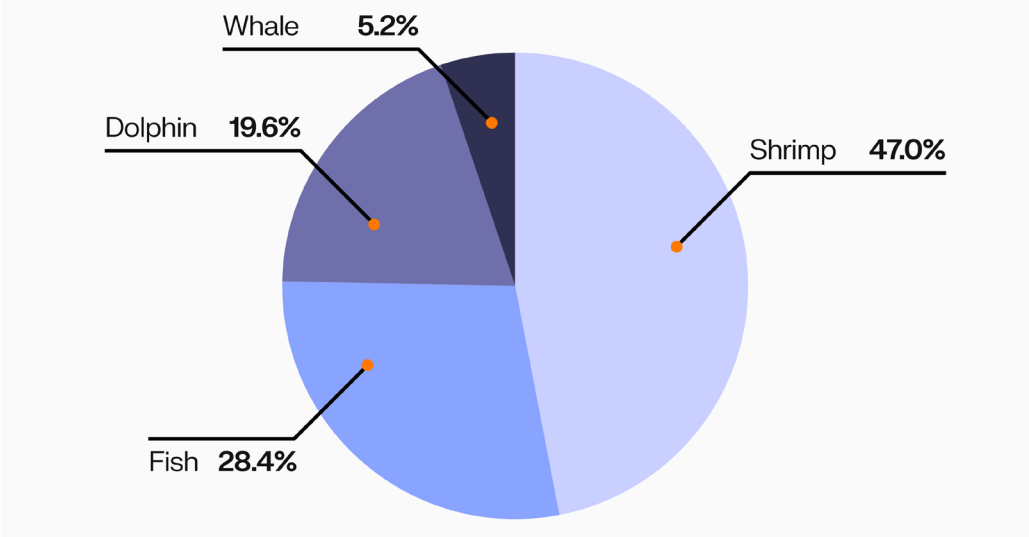
After fees, the picture converges. Onchain discretionary funds generated a weighted-average **6.66%** net return, nearly identical to the **6.50%** net return from traditional peers. Despite operating in a nascent ecosystem with far smaller pools of capital, DeFi discretionary managers are delivering outcomes competitive with the largest and most established hedge funds in the world. Looking forward, the sustainability of this convergence depends on two forces. On one hand, traditional finance funds show they can scale performance even at tens of billions in AUM. On the other hand, DeFi offers structural advantages in redemption liquidity, transparency, and cost automation that could support performance resilience as these strategies scale. For allocators, the takeaway is that discretionary DeFi strategies have matured into a credible peer set, with comparable net-of-fee returns despite radically different infrastructure and scale dynamics.

VI. Allocator Profiles to Discretionary Onchain Strategies

The audience for discretionary onchain strategies differs markedly from passive from a depositor count perspective. While anyone with a wallet can technically deposit, the target allocator base skews towards DAOs, institutions, and high-net-worth investors looking for alpha rather than steady, programmatic yield.

This is evident by the fact that Fish, Dolphins and Whales, defined as allocators above **$10k** per deposit, make up **~53%** of depositors in aggregate. This comes down to slightly higher minimum thresholds in some discretionary vaults, but also reflects the more institutional nature and bespoke service that many managers provide. Access models also vary, with some vaults being permissionless but manager-directed, while others require whitelisting and KYC.

Discretionary Onchain Strategies: Depositor Count

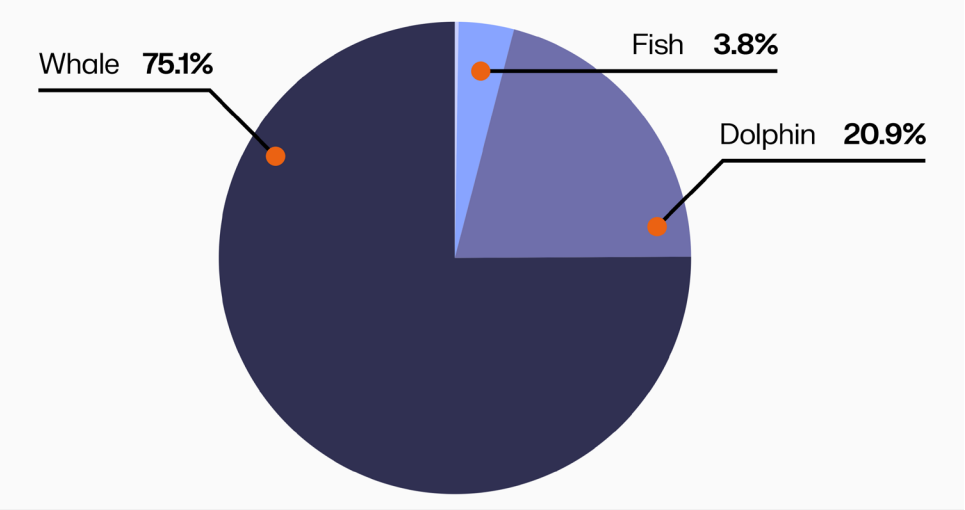


Source: Dune Analytics, Keyrock Intelligence

Interestingly, when looking at supply amount, we see only a **75.1%** dominance from Whales, whereas in passive onchain strategies this figure sat at **94.3%**. In discretionary strategies we see a higher concentration of 'middle' sized allocators, ranging from **$10k to $1 million**, at **24.7%** in discretionary versus **5.61%** in passive onchain strategies.

Discretionary strategies are more bespoke and experimental, and often carry higher operational or infrastructure risk. This naturally attracts smaller funds, DAOs and HNWI which make up this 'middle cohort'. It's also partially a reflection of product-market fit, in which passive strategies have established credibility onchain, while discretionary strategies, a newer strategy style, are yet to gain the full trust of capital allocators.

Discretionary Onchain Strategies: Supply Amount



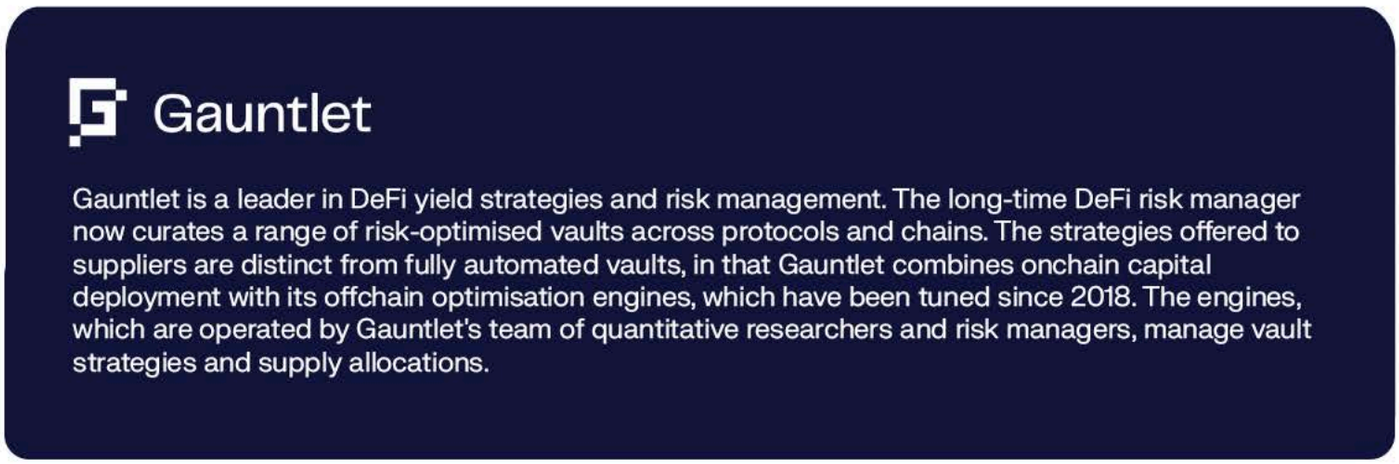
Source: Dune Analytics, Keyrock Intelligence

VII. Catalysts for Discretionary Onchain Strategies Growth

Discretionary onchain strategies have, and will continue to benefit from, a shift in allocator behaviour and advances in infrastructure. After years of skepticism, discretionary managers like RE7 and MEV Capital have demonstrated that human-directed strategies can rotate across ecosystems, hedge dynamically, and capture basis or funding spreads unavailable to static vaults. This track record has attracted high-net-worth and institutional mandates that want the risk management sophistication of Traditional Finance hedge funds but executed entirely onchain. We also see the lack of experience bottleneck referenced in the automated strategies section playing out here, with many institutional managers seeing discretionary onchain strategies as a compromise, in which they are able to trust, and more importantly get bot-optimised, with human-oversight strategies past their investment committees, while still engaging in onchain strategies and benefiting from higher yield.

Technical maturity is improving, closing one of the biggest gaps. Portfolio dashboards, real-time risk analytics, and compliance-ready reporting are emerging, reducing the operational blind spots that once deterred institutions. MEV protection, which is a mechanism that protects traders from practices like front-running, is also becoming standardised, for example Jito's BAM on Solana, and private transaction relays on Ethereum, are addressing concerns about execution integrity that would otherwise undermine allocator trust.

AI can then be brought into the conversation, as in discretionary onchain strategies specifically it's an integration acting as a force multiplier. Real-time data feeds and adaptive risk scoring give managers the tools to operate with higher precision, while automation handles rebalancing and monitoring. For allocators, this blend of discretionary oversight and machine-driven efficiency makes active DeFi vaults look less like experimental trading desks and more like credible, technology-augmented hedge funds.

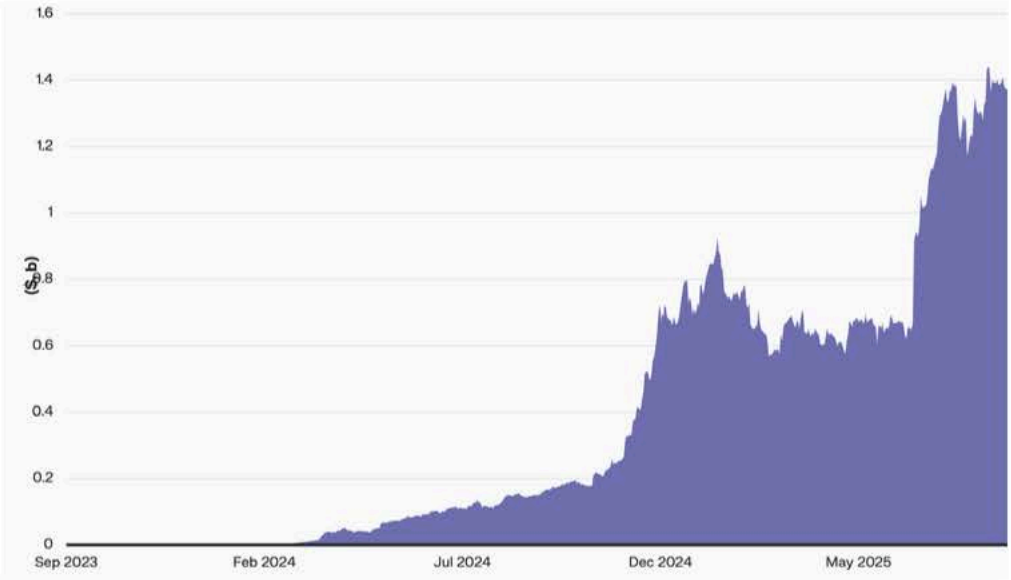


Today, Gauntlet curates over ~$1.5 billion in vault AUM. This is in addition to Gauntlet's core risk management business, which provides parameter recommendations and monitoring for protocols representing 30% to 80% of DeFi's total TVL at various times.

In an interview, Nick Cannon from Gauntlet highlighted how some traditional financial systems are cumbersome and how onchain strategies offer superior solutions. "If you were an LP in a private credit fund and wanted to lever up, it'd be a nightmare from a paperwork perspective. Onchain we can do this in seconds, permissionlessly."

He noted that Gauntlet's strategies are built on the unique properties of DeFi. "Composability in DeFi enables a lot... Gauntlet USD Alpha, for instance, taps into mainnet yield, Pendle PTs, and more, from USDC on Base.

Gauntlet: Assets Under Management
2023 - 2025



Source: DeFiLlama

The core value proposition of Gauntlet's strategies is the application of its optimisation engines combined with active oversight from risk management engineers to produce risk-adjusted yield.

Our interview with Nick highlighted a potential catalyst for the DeFi over the coming 12-18 months being the rise of tokenised RWAs. Nick expects a core growth vector to be the expansion of onchain asset types, such as tokenised equities, allowing for new and more complex risk-adjusted strategies."

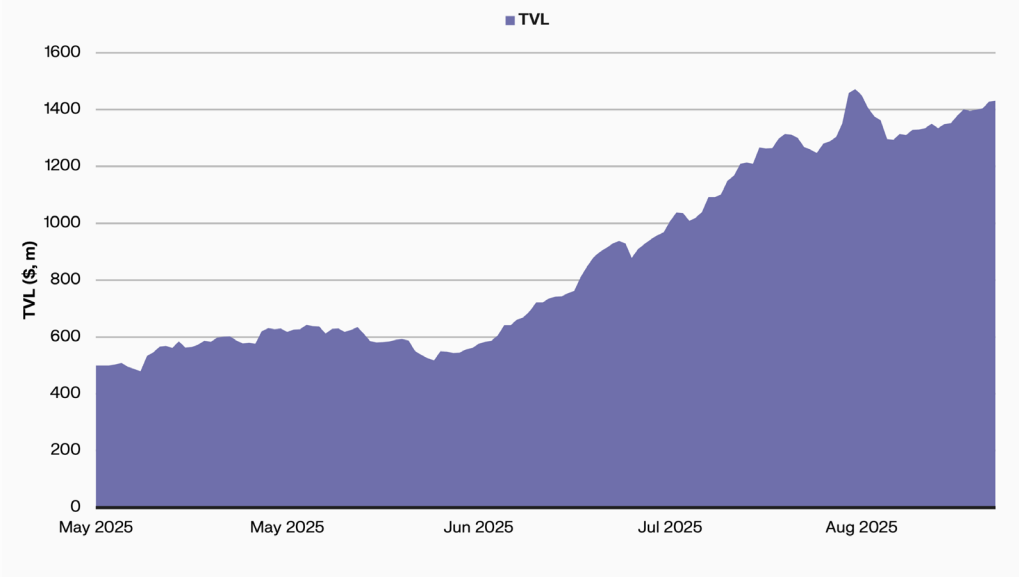
MEV CAPITAL

MEV Capital positions itself as a discretionary DeFi yield fund, with a particular focus on market neutral strategies denominated in the deposit asset. In this sense, their vaults offer exposure to the underlying asset with yield generated from their market neutral investment strategies. The core philosophy of these strategies is to be executed fully onchain, to be transparent, and importantly, non-custodial from inception, inspired by the mistrust era of 3AC, Celsius, FTX.

When exploring onchain asset management, MEV Capital should be on your radar as it has become one of the more sophisticated onchain discretionary managers, appealing to both retail and institutional allocators. The investment firm has seen extraordinary growth in H2 this year, increasing its AUM by 91% since late June to a total of $1.432 billion. This positions MEV Capital as one of the top discretionary strategy funds alongside Gauntlet.

MEV Capital: Assets Under Management

May 2025 - September 2025



Source: DeFiLlama

MEV Capital differentiates itself through a focus on market-neutral, and asset, as opposed to dollar, denominated strategies. These strategies are becoming increasingly popular in discretionary strategies onchain, in which allocators are able to capture yield on volatile assets while maintaining the underlying exposure.

MEV Capital further differentiates itself through its trust-minimised operating model, designed to reassure allocators. Rather than handing over custody to a manager, clients retain majority control of vault assets through a multi-sig or MPC structure. MEV Capital can propose transactions, but cannot execute them without client authorisation, which can be pre-determined for certain actions. As COO Gytis Trilikauskis explained, "The majority of keys would be held by the client, allowing MEV Capital only to initiate operations, but never to validate them without the client's knowledge." This design ensures transparency and client oversight, aligning the vault infrastructure with institutional standards of governance, and is becoming a standard across discretionary strategies onchain.

Risk management is another cornerstone of MEV's positioning. The firm applies a dual-lens framework to every allocation, assessing both the underlying asset issuer and the protocol in which capital is deployed. Exposures are tiered according to risk appetite, with additional monitoring conducted through third-party tools like Hexagate and Hypernative. These third-party monitoring tools are able to simulate transactions prior to block inclusion, to catch malicious attacks on protocols or wallets alike and prevent the impact in real-time. This layered approach allows the team to anticipate vulnerabilities before they become critical, providing allocators with a level of assurance that's considered a step up for onchain asset management strategies.

It's worth noting that MEV has refined its operational oversight by combining automation with human controls. While execution is automated onchain, all material operations are subject to a 'four-eyes' principle, requiring manual verification before completion. This hybrid approach strikes a balance between the efficiency of programmatic execution and the prudence of human review, offering allocators confidence that speed does not come at the expense of oversight. This is primarily where passive strategies differ from the more discretionary strategies onchain from a risk perspective.

Looking ahead to the future, MEV Capital COO, Gytis Trilikauskis, highlighted three areas in which the investment firm sees strong potential for growth in the onchain asset management industry. The first is the growth of RWAs, which will materially expand the asset and liquidity base to which these funds can allocate. Gytis sees major growth in tokenised credit and insurance, once onchain redemption cycles are engineered to match onchain liquidity norms, "RWAs will really take flight once redemption cycles align with DeFi instant liquidity expectations."

Moreover, Gytis sees a significant catalyst for growth coming from the convergence of Digital Asset Treasuries (DATs) and traditional finance structures. Trilikauskis stressed that DATs are rapidly becoming the 'next wave' of allocators, driving flows into onchain strategies as they seek more efficient ways to manage balance sheets. "What excites me most is the rise of treasury companies built entirely on top of Bitcoin or Ethereum," he noted. "These DATs are essentially listed entities that can channel institutional-grade capital directly into onchain strategies, and that's where I think the biggest inflows will come from over the next cycle." As more DATs spin up, they are forced to innovate and compete on ways to generate yield on their assets, both to achieve sustainability by covering dividend and debt interest payments, but also to compete on increasing their underlying assets per share over time. While the pioneers such as Strategy have opted to securitise their underlying Bitcoin and generate a yield by taking to traditional financial markets, newer DATs, particularly those focused on assets with a lesser reputation on Wall Street, are looking to DeFi. This is evident in communication from Kyle Samani, Managing Partner at Multicoin Capital and now Chairman of Forward Industries, a Solana DAT, when Samani stated that he aims to integrate SOL held on Forward Industries balance sheet to Solana DeFi in order to generate a yield on their underlying assets.

5.

Credit Strategies in Onchain Asset Management

I. Defining Onchain Credit Strategies

At their core, onchain credit strategies are strategies that involve lending capital onchain, underwriting credit risk, and structuring debt instruments via smart contracts. This can take several forms, such as unsecured or permissioned lending pools on Maple or Clearpool, tranching of risk into senior or junior pools or credit derivatives, or even niche asset-specific pools such as NFT backed loans on Gondi.

Borrowers will tap liquidity directly from pools or vaults, while investors, in this case our lenders, earn yield based on predefined, either static or dynamic, credit terms, enforced by smart contracts. Typically, these smart contracts control liquidation mechanisms in which the collateral is custodied by the smart contract and distributed to the lender in the event of a failure to repay. The result is that we end up with traditional credit functions, such as origination, underwriting and syndication, onchain, with more transparency and programmability than traditional alternatives.

Onchain credit sits at the debt capital markets layer of DeFi, providing the rails for lending and borrowing beyond simple overcollateralised loans. Protocols like Maple, Clearpool, Goldfinch, and Gondi match stablecoin liquidity with borrowers ranging from trading firms to NFT holders, using permissioned pools, whitelisting, or novel collateral frameworks. These markets integrate directly with the broader DeFi stack in that loans are denominated in stablecoins, claims on pools are tokenised, and vault infrastructure can package credit exposures into structured strategies.

II. History and Evolution of Onchain Credit Strategies

The origins of onchain credit in an asset management context, i.e. post-overcollateralised peer-to-peer vanilla lending like Aave, came when protocols like Maple and Goldfinch emerged to bring unsecured and RWA-backed lending onchain. Maple pioneered whitelisted institutional credit pools, where lenders could underwrite trading firms and market makers using stablecoin deposits, while Goldfinch sought to expand access to emerging-market borrowers via tokenised credit lines. These early experiments tested whether trust could be replicated onchain not only through collateral, but through governance, legal agreements, and delegated risk managers.

By 2023, the limits of that model were stress-tested through bear markets. Several pools faced defaults, underlining both the promise and the risks of permissioned credit. Yet the resilience of the framework, with tokenised claims, transparent pool-level data, and automated repayment flows, proved attractive enough to institutional allocators that development continued. Clearpool refined the concept further, offering pools of unsecured lending to vetted borrowers with tokenised LP shares providing tradable exposure.

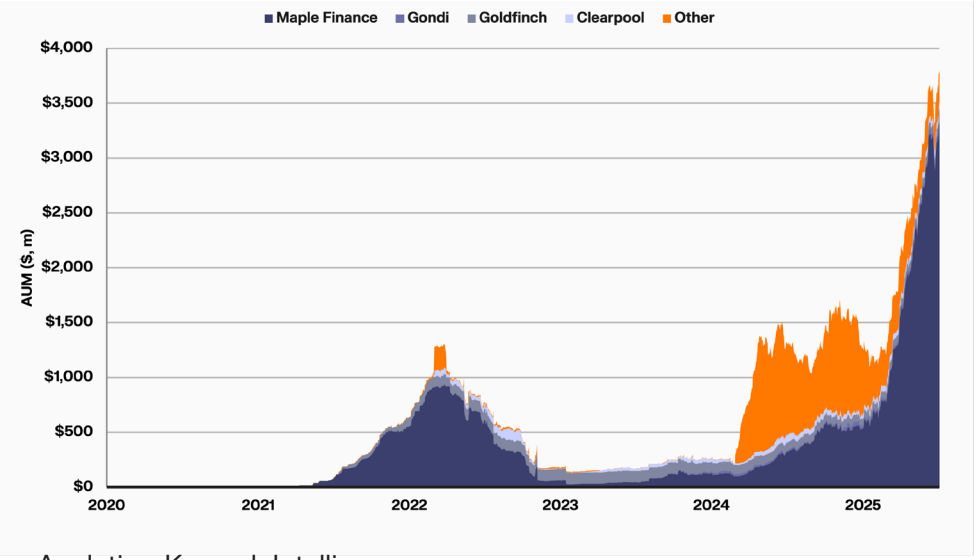
In parallel, a more experimental branch of onchain credit emerged, namely NFT-backed lending. Platforms like Gondi and others introduced collateralised loans against digital art and collectibles, building liquidity for previously illiquid assets. While niche, these experiments showcased the extensibility of the model. If you can tokenise an asset, you can lend against it, and structure repayments programmatically. This also creates a direct tie between these onchain credit protocols and the growth of digital art and collectibles, an asset class that's currently unserved elsewhere.

Fast forward to 2025, and onchain credit has become one of the fastest-growing segments of decentralised asset management. Maple's syrupUSDC vault, with instant-liquidity wrappers on Uniswap and Balancer, has redefined how stablecoin float can be deployed, combining competitive yield with withdrawal flexibility. Institutions now view permissioned credit pools as a regulated, transparent alternative to private debt funds, while DAOs and treasuries increasingly deploy idle stablecoin reserves into these products. At the same time, NFT credit and RWA lending continue to expand the boundaries of what qualifies as collateral.

III. The Rise of SyrupUSDC: The AUM Growth of Onchain Credit Strategies

Onchain Credit Strategies AUM by Protocol

2020 - 2025



Source: Dune Analytics, Keyrock Intelligence

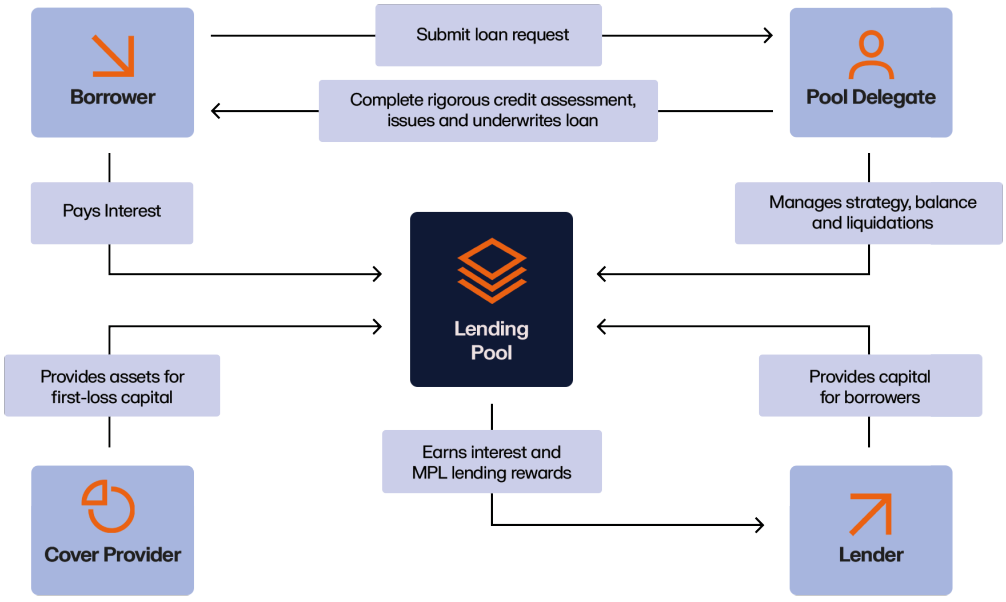
Onchain credit has staged one of the most impressive rebounds in the asset management stack. After the collapse of early unsecured lending experiments in 2022, AUM contracted sharply, leaving doubts about whether the model could recover. The past 18-months have answered that question, with Maple Finance re-emerging as the anchor protocol, driving its own AUM above **$3 billion**, and total strategy AUM close to **$4 billion**. Maple's AUM growth has been supported by innovations such as syrupUSDC, which introduced fungibility and liquidity into what was once a bespoke, illiquid product set. Alongside Maple, newer entrants such as Gondi have carved out a crypto-native niche by using NFTs as collateral, broadening the definition of credit markets onchain.

There has been a shift in composition, where Clearpool and Goldfinch once commanded their own corner of the market on 2022, Maple now dominates. We also see the 'Other' category, a concoction of experimental protocols, has fallen to near-zero levels as Maple's dominance has risen.

IV. Comparing Onchain Credit Strategies to Traditional Finance Counterparts

Onchain credit strategies represent lending and borrowing markets where investors provide capital directly to borrowers in exchange for yield, typically with the sourcing and placement of capital occurring onchain. These strategies span overcollateralised lending, unsecured corporate credit, DAO and protocol treasury loans, RWA financing, and NFT-backed lending. Their aim is to take the advantages of onchain lending protocols, and apply them more broadly with complex implementations, as well as to offchain projects, thereby broadening access to borrowers while offering lenders higher returns. Allocators include a mix of retail users in permissionless pools, DAOs managing treasury capital, and institutions participating in permissioned, underwritten credit markets.

Onchain credit yield is generated primarily from lending against digital collateral, often overcollateralised loans secured by stablecoins or liquid tokens, with interest paid directly onchain. Traditional finance private credit sources yield from extending loans to corporates, SMEs, or real estate projects, often unsecured or lightly collateralised but backed by legal contracts and covenants.



Source: Maple

For onchain credit, the mapping to traditional finance is relatively direct, though with important nuances. The closest parallels lie in Private Credit Funds (PCFs), particularly those focused on direct lending. In addition to this, we explore Marketplace or Peer-to-Peer Lending Platforms (P2Ps) and High-Yield Corporate Bond Funds (HYFs).

Potential Comparator	Comparative Relevance	Comparative Shortcomings	Overall Suitability
Private Credit Funds (PCFs)	Provides loans directly to corporates, SMEs, or specialised borrowers. Similar mandate to onchain credit pools.	Monthly or quarterly lock-ups versus instant liquidity onchain, low transparency, not permissionless, requires centralised underwriting.	Primary comparator
Peer-to-Peer Lending Platforms (P2Ps)	Retail-facing, permissionless in nature, connects lenders and borrowers directly. Mirrors user-driven onchain credit.	Centralised intermediaries, no composability, lower transparency vs. onchain credit.	Reasonable comparator
High-Yield Corporate Bond Funds (HYFs)	Capture higher yields through exposure to riskier debt, broadly reflecting similar risk and return profiles to some onchain pools.	Publicly traded and liquid. Exposure through bonds, not direct lending, is less idiosyncratic.	Less reasonable comparator

For onchain credit strategies, the primary comparator is PCFs, specifically direct lending vehicles. While private credit, a $1.6 trillion industry, operates at a far greater scale, both strategies share the economic function of generating yield by underwriting loans to corporates or individuals, with returns driven by credit spreads. Similar to onchain pools, PCFs operate with relatively illiquid exposures and require active monitoring of borrower performance. The key difference lies in transparency, where private credit funds typically disclose performance quarterly and behind paywalls, while onchain credit allows lenders and prospective lenders to track every loan, repayment, and default in real time.

Given the close comparisons between onchain credit strategies and PCFs, this report will directly compare the two, while still leveraging weighted averages for fee and performance comparisons, in conjunction with qualitative assessment.

V. Benefits and Drawbacks of Onchain Credit Strategies Relative to Traditional Finance Counterparts

Onchain credit strategies preserve the essential value proposition of private credit, in that they generate yield from lending to businesses and institutions, while stripping away many of the frictions and inefficiencies that define the traditional model. Accessibility is perhaps the clearest differentiator. Traditional private credit funds typically require investment minimums in the range of $5-10 million, locking out all but the largest allocators. Onchain products, however, often lower the barrier to entry by several orders of magnitude, with thresholds measured in thousands or even hundreds of dollars. Combined with the permissionless nature of decentralised finance, this opens the asset class to a far broader allocator base, including DAOs and retail, while retaining institutional relevance.

Liquidity and transparency provide further advantages. In private credit, lock-ups of three to seven years are standard, and reporting cycles are limited to monthly, quarterly or semi-annual windows, with loan-level detail hidden behind NDAs and manager discretion. Onchain, these constraints dissolve. Lock-ups can be non-existent in products such as Maple's syrupUSDC, while pool exposures, repayments, and defaults are visible onchain in real time. Tokenisation such as syrupUSDC further enhances this model by compressing reporting lag from quarters to blocks, and by allowing lenders to enter and exit positions programmatically.

The efficiency gains extend to the operation of the strategies themselves, with smart contracts automating repayment flows and interest accrual, reducing administrative overhead and stripping out layers of intermediation that in traditional funds justify additional fees. Moreover, the tokenised nature of onchain credit positions means they can be rehypothecated across DeFi. LP tokens can serve as collateral in lending protocols, be traded in secondary markets, or even be integrated into structured products. This composability transforms credit exposures into versatile building blocks, enabling capital to work across multiple venues simultaneously.

Perhaps the most compelling innovation lies in the treatment of default risk. In traditional credit markets, collateral recovery is slow and uncertain, with processes such as liquidating real estate dragging out for months or years. Onchain, this risk is dramatically reduced through the integration of smart contract logic and collateral custody. Should default conditions be met, assets are transferred automatically and instantaneously to lenders, eliminating the delay and uncertainty that characterise enforcement in traditional markets. This structural edge, combined with transparency and efficiency, positions onchain credit as a credible and scalable alternative to one of traditional finance's fastest-growing asset classes.

Despite the benefits of onchain credit, which are primarily centred around the product, there still remains a number of drawbacks that stem primarily from the nascency of the industry. The most significant here is the borrower pool size and diversity. Not only is the borrower pool far smaller than in traditional private credit, the majority of lenders are crypto-native, given the requirement to be comfortable with onchain mechanics when depositing to onchain credit strategies. These crypto-native lenders span DAO Treasuries, small crypto-native investment firms, and a handful of FinTech lenders. Private credit, on the other hand, spans borrowers across product type, industries and geographies, giving allocators better diversification.

Another consideration for onchain credit strategies is that credit underwriting depth is typically narrower than in traditional private credit. While protocols like Maple and Clearpool employ whitelisting and professional underwriters, underwriting data onchain is less standardised and occasionally left to the discretion of the lender. On the flip side, traditional lenders can leverage extensive financial statements, covenants, collateral appraisals and legal enforcement tools.

A risk that has been somewhat mitigated on chain is that of illiquidity. Private credit is also illiquid, but secondary markets and structured vehicles such as CLOs or BDCs provide more scale and optionality. Onchain, this has previously been an issue, but new structures such as syrupUSDC and similar vaults create more fungibility and liquidity for deposits to these types of strategies.

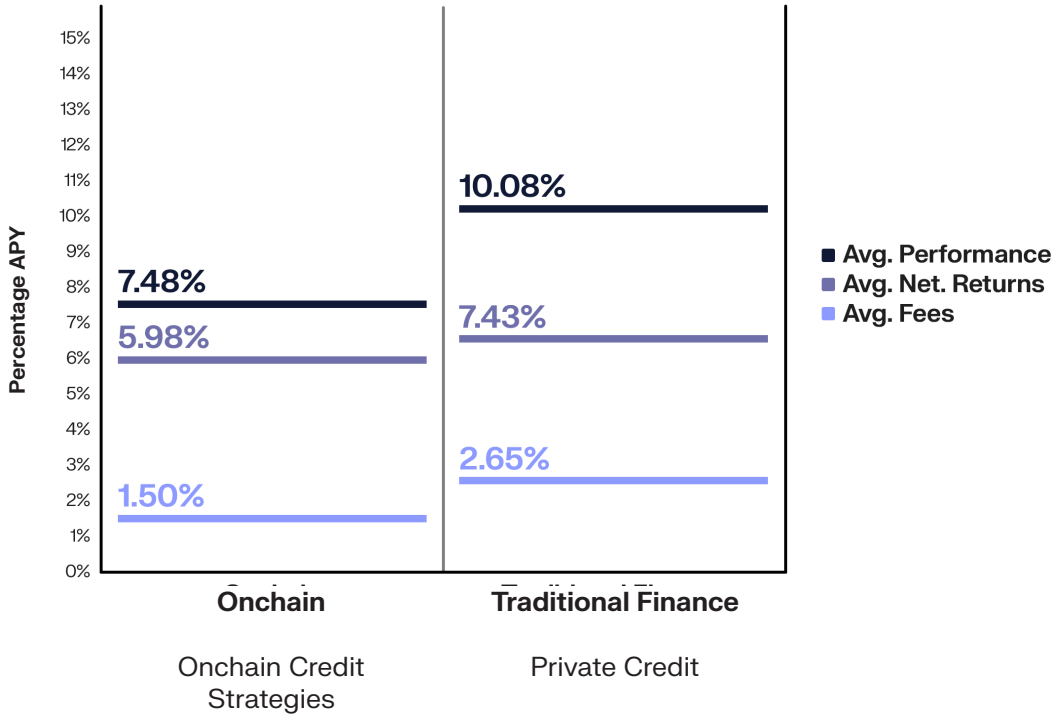
Of course, this risks section wouldn't be complete without the mention of infrastructure and smart contract risk for onchain strategies, which primarily apply to credit strategies through the default mechanisms controlled by smart contracts. This is seen by some as a benefit, in that defaults are settled almost instantly in the event conditions are met, although it does introduce another layer of potential exploitation.

VI. Onchain Credit Strategies Fees and Performance

As mentioned in our previous sections, when comparing onchain credit strategies to traditional finance, we've opted to compare to private credit. Both seek to generate yield by underwriting loans to corporates, institutions, or individuals.

Onchain Credit Strategies

Average Performance & Fee Comparison



Source: Maple, Gondi, Cambridge Associates, Prequin

Onchain credit delivered a weighted-average gross return of **7.48%**, versus **10.08%** for the private credit funds in our benchmark group. Within DeFi, returns typically vary by pool type. Maple's flagship syrupUSDC pool, with over **$3 billion** in deposits, generated **7.00%**, while its High Yield pool delivered **10.20%** on a much smaller **$592 million** base. By contrast, private credit funds like Blackstone's Private Credit Fund, managing over **$72 billion**, or Oaktree's **$6.2 billion** Strategic Credit Fund, have been able to sustain high single-digit to low double-digit yields while operating at much larger scale. This highlights the core distinction that DeFi credit is still experimental and fragmented, while private credit in TradFi has matured into one of the largest and most reliable private market strategies.

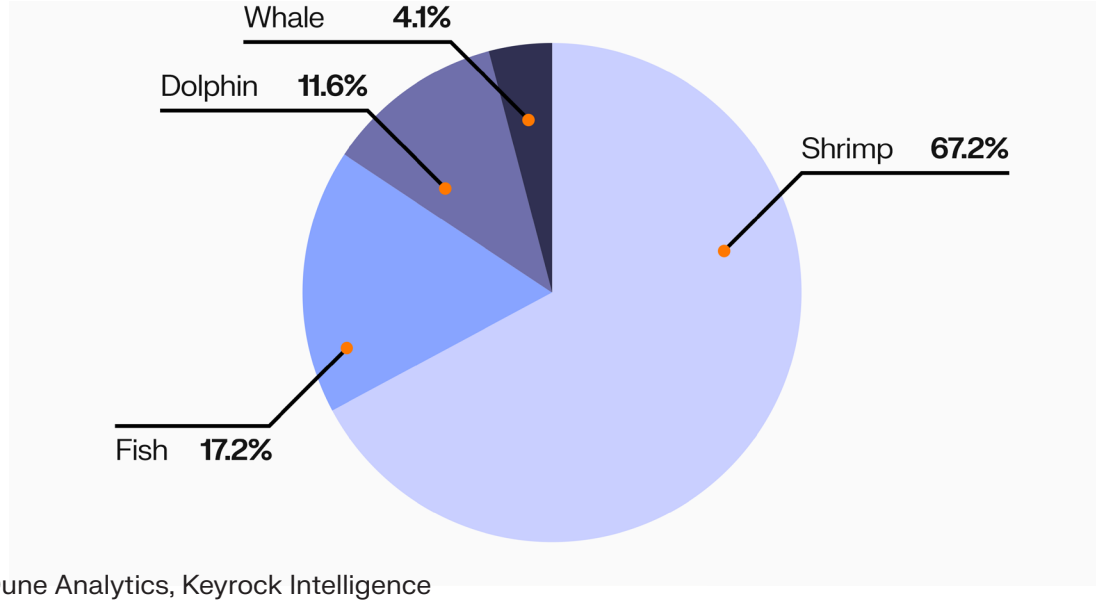
Fees tilt the comparison in favour of DeFi. Onchain credit strategies average **1.50%**, largely reflecting smart contract costs and leaner administration. Traditional private credit funds, by contrast, average **2.65%**, with layers of management and servicing fees that reflect heavier operational structures. This cost efficiency is one of the clearest advantages of the onchain model, where origination, servicing, and even collateral liquidation can be automated programmatically.

After fees, private credit retains an edge, with net returns for our sample of funds averaging 7.43%, compared to 5.98% for onchain credit strategies. This suggests that while DeFi credit has structural advantages in efficiency and accessibility, it currently struggles to match the scale-adjusted performance of established private credit platforms. The ability of Blackstone, Oaktree, and KKR to deliver similar or higher returns while deploying billions underscores the institutional depth of traditional credit markets. That said, onchain credit offers benefits that TradFi cannot replicate such as real-time transparency, permissionless access, and composability, features that may grow in importance as these products mature and attract a wider allocator base.

VII. Allocator Profiles to Onchain Credit Strategies

When looking at the depositor count to onchain credit strategies, we see primarily retail users interacting with Maple Finance's syrupUSDC product, as shown by the fact that **67%** of this audience are categorised as Shrimps, defined as depositors of under **$10k**. Access models reflect the risk in the pool, with unsecured corporate lending being whitelisted, while NFT- or RWA-backed lending tends to be permissionless. This segmentation has allowed onchain credit to serve both sides of the market, those seeking institutional-grade credit exposure and those experimenting with new collateral types.

Credit Strategies Onchain: Depositor Count

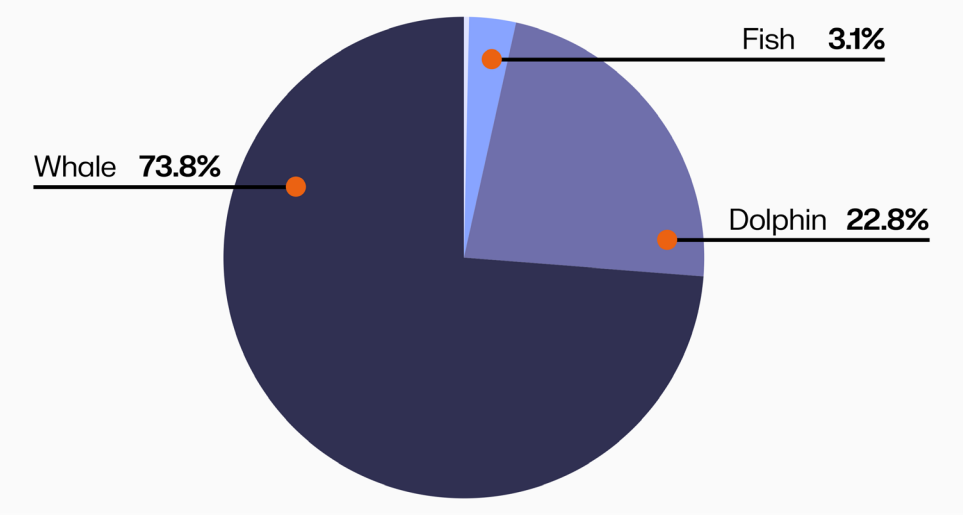


Source: Dune Analytics, Keyrock Intelligence

Of course, the permissionless side of these markets that attracts retail accounts only for a small portion of the total capital deployed to onchain strategies. Looking at the supply amount, we can see that the permissioned, larger depositors are allocating far more capital than the smaller depositors.

Whales account for 74% of AUM in onchain credit. This better reflects the maturation of the onchain credit industry. Institutional players and protocol treasuries typically allocate tickets in the million dollar range, favouring permissioned pools with rigorous, institutional-grade borrower underwriting.

Credit Strategies Onchain: Supply Amount



Source: Dune Analytics, Keyrock Intelligence

VII. Catalysts for Onchain Credit Strategies Growth

The next leg of growth in onchain credit will likely be defined by institutionalisation and composability. On the institutional side, regulatory clarity is already enabling banks, fintechs, and credit funds to participate in permissioned pools, with Maple and Clearpool showing the model works at scale. As regulatory pilots in the US, UK, and Singapore mature, we should expect larger tranches of private credit to migrate onchain, particularly in shorter-duration corporate lending where transparency and operational efficiency are decisive advantages. Tokenised wrappers such as syrupUSDC are critical here, creating liquid entry and exit points that transform what was once a multi-year commitment into a yield-bearing, tradable instrument.

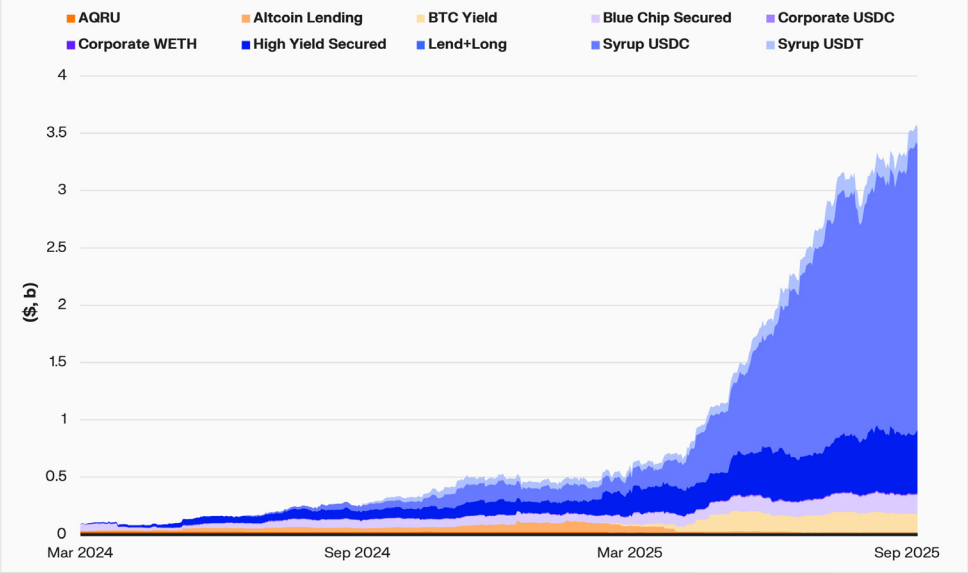
At the same time, onchain credit is becoming increasingly composable with the rest of DeFi. Lending positions that once sat siloed within closed funds can now be tokenised and rehypothecated across money markets, DEXs, and structured product vaults. This composability multiplies utility, where a credit LP token might simultaneously generate yield, serve as collateral, and form part of a hedged structured strategy. As standards like ERC-4626 proliferate, integration costs fall, opening the door to fund-of-funds models and dynamic credit portfolios that would be operationally impossible in Traditional Finance.

New borrower segments also represent an underappreciated catalyst. Beyond institutional unsecured pools, protocols like Gondi are proving that NFT-backed lending can be scaled transparently, carving out niches in digital asset financing that do not exist in traditional markets. Combined with falling operational frictions, this diversity of collateral types should deepen liquidity and attract more sophisticated lenders into the ecosystem.

Maple

Launched in 2021, Maple Finance built institutional-grade onchain lending infrastructure that epitomises onchain asset management. Founded with the goal to bring DeFi lending beyond legacy, closed systems, Maple has since facilitated over $9 billion in loans across hundreds of institutional participants, making it the largest onchain asset manager provider to date. As Maple themselves put it in an interview with Keyrock, "Maple has now originated over $9bn in loans through our smart contract infrastructure. Each of these loans has the unique feature of being fully verifiable onchain. Lenders are able to see the loan terms, loan status and repayments."

Maple: Assets Under Management
2024 - 2025



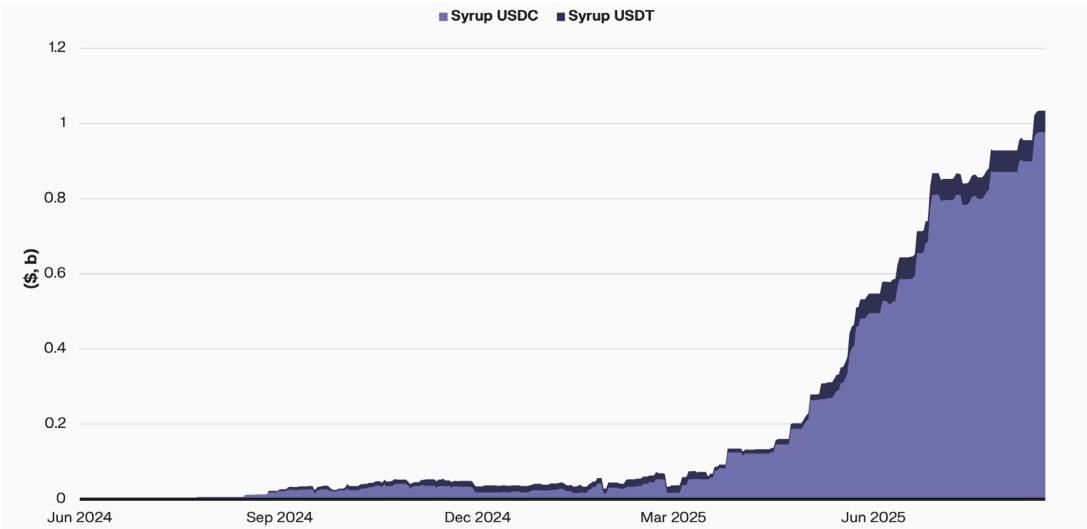
Source: Dune Analytics, @maple-finance

The platform itself serves a dual-role, with the protocol layer serving as a permissioned marketplace where institutions can underwrite pooled credit with whitelisted borrowers. The capital deployment layer, on the other hand, via its own products like syrupUSDC, offers liquid, aggregated exposure to credit strategies built onchain.

We see Maple as a critically important protocol for the evolution of onchain asset management. It catalysed a move of DeFi credit away from purely retail focused crypto-native borrowers, towards institutional-quality lending. Maple was also one of, if not the, first protocols to introduce permissioned and whitelisted pools, emphasising the importance of compliance alignment to push the industry forward.

A core focus of Maple's innovation has been their syrupUSDC product, offering yield-bearing derivatives for both USDC and USDT, though the market has primarily backed the USDC-implementation. Historically, onchain credit markets were illiquid and bespoke, but Maple's syrupUSDC creates a fungible, instantly redeemable dollar yield instrument. In practice, this bridges the gap between short-term liquidity needs of lenders, and long-term credit exposure in a product that opens up credit market accessibility to a whole new cohort of allocators, and importantly, capital. On top of this, syrupUSDC is integrated into a handful of DeFi protocols, including but not limited to Pendle, Morpho, Euler, Jupiter and Kamino to provide additional yield composability and leverage.

Maple: Syrup Loans Outstanding by Day



Source: Dune Analytics, @maple-finance

Another feature that Maple worked into its product is the combination of traditional finance underwriting with DeFi composability, while maintaining overcollateralisation. Maple was able to combine traditional credit practices, ranging from due diligence and whitelisted borrowers to professional underwriting, with the permissionlessness and flexibility of DeFi. This essentially builds a hybrid model, in which the risk and learning curve associated with onchain protocols is somewhat mitigated by the recognisable, and reputable traditional finance practices, while still maintaining the value adds offered by onchain products. Maple referred to this point specifically in our interview, "we view these as complimentary rather than in competition with each other. The more we innovate and improve our technology the more we are able to scale without compromising on our credit management and underwriting standards."

While not exclusive to Maple, this hybrid approach still enables the transparency of borrower performance, defaults, repayments, and pool health that enable real-time monitoring. Allocators can see risks as they emerge, not in quarterly reports offered by traditional finance counterparts. We strongly believe this is the future for private credit, a hybrid system that merges the best of both worlds.

Maple describes this as a structural advantage over Traditional Finance, “credit markets are opaque, unknown and inaccessible for the majority of investors today. Maple enables broad and distributed access to credit, removing the frictions of borders, investment minimums, and active removal of investors.”

The borrower profile on Maple has evolved significantly. What began with small, crypto-native firms has expanded into larger, publicly listed companies and multi-billion-dollar businesses. As Maple notes, “when Maple launched in 2021 we had a small number of crypto native firms that borrowed at small sizes. Today, Maple lends to public companies and multi billion dollar businesses. It shows the progress across the crypto industry and reinforces our long term belief that the financial system will move entirely onchain over the coming decade.”

Vaults like Maple’s have the potential to gain position amongst allocator portfolios as direct substitutes for short-term credit or money-market products. This is true across all allocator types, especially risk-adverse allocators like pension and insurance funds. By demonstrating regulatory alignment and delivering consistent yields, Maple can showcase that institutional-grade credit products work onchain, catalysing a wave of allocator participation.

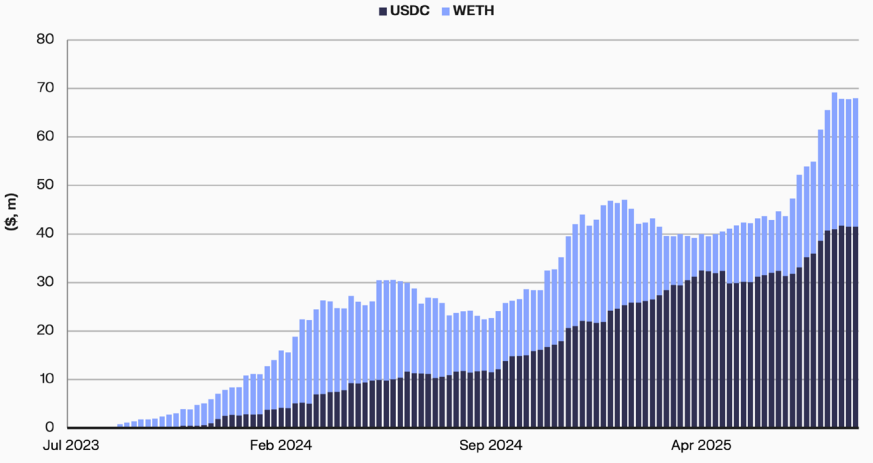
GONDI

Gondi is a decentralised, peer-to-peer, non-custodial NFT liquidity protocol that enables users to buy, sell, and borrow against NFTs. The component of this product that we’re particularly focused on is the borrowing, which can be structured as sophisticated onchain credit facilitation utilising crypto-native collateral, with the ability to refinance and the introduction of tranche seniority.

Unlike other credit protocols that anchor themselves in tokenised treasuries or whitelisted borrowers, Gondi leans fully into the crypto-native side of the spectrum. It treats NFTs as balance-sheet assets, enabling holders to unlock liquidity without intermediaries or custodians. In practice, that means a Chromie Squiggle or CryptoPunk can serve the same financial function as real estate or a stock portfolio, transforming the asset into a yield-bearing, loan-collateral asset class. With instant refinancing, programmable repayment mechanics, and full transparency on borrower behaviour, Gondi is pushing the frontier of what onchain credit can look like.

Gondi has seen phenomenal growth YTD, with outstanding debt, defined as the outstanding principal and interest for loans originated on Gondi, having grown **60.6%** YTD to **$69 million**. The two loan denomination assets currently available on Gondi are USDC and ETH, with the former being the market preference at 60.1% dominance, highlighting the fact that despite the underlying NFT assets being typically valued in ETH-terms, these loans are utilised by investors seeking dollar-denominated returns.

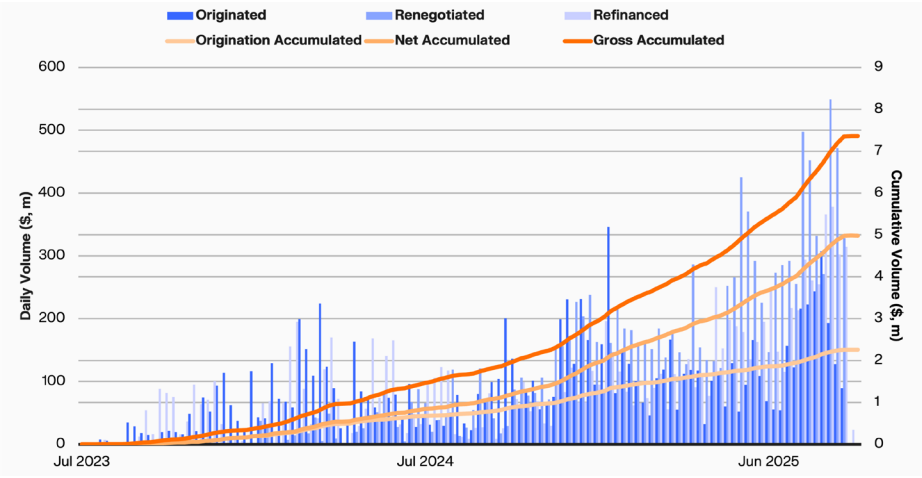
Gondi: Outstanding Debt by Assets



Source: Dune Analytics, @gondi_protocol

What's interesting about the breakdown of this loan volume, is that the refinancing and renegotiation volumes now outpace new originations, which is an indication that the onchain, NFT-denominated credit markets are maturing. While early adoption was about proving that NFT-backed loans could work, the focus is now on optimising existing debt positions, much like traditional credit markets where refinancing dominates flows. In the same vein, this points to an enhancement of borrower sophistication, where borrowers are acting more strategically with their debt, rolling over or renegotiating terms instead of simply repaying or defaulting. Burga from Gondi touched on this by saying that, "Borrowers have evolved from short-term speculators to long-term holders using credit strategically. Early on, loans were often just hedges - a way to lever up or buy optionality. Now we see people using NFTs as collateral for meaningful life events such as buying homes, bridging a property sale, or funding projects."

Gondi: Loan Volume

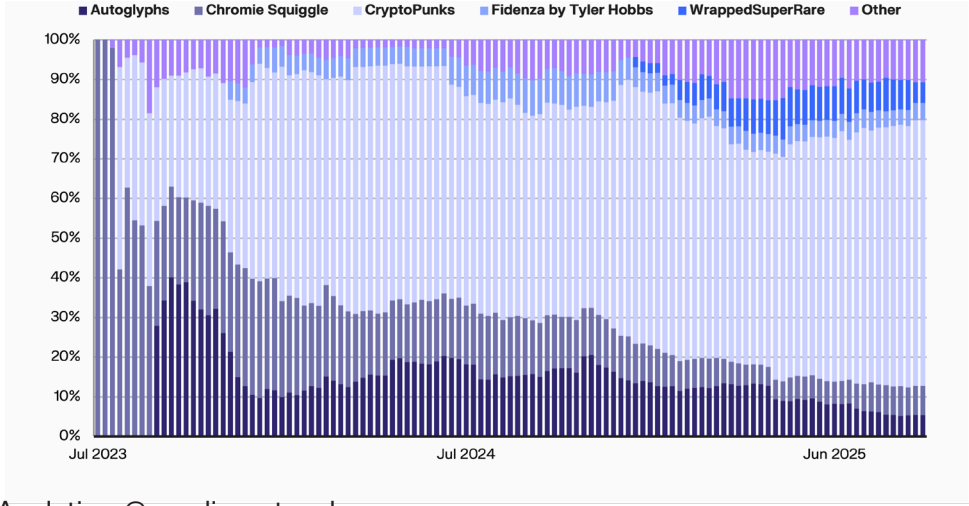


Source: Dune Analytics, @gondi_protocol

The rise in refinancing activity also reflects growing competition among lenders. Onchain credit allows a loan originated at one rate to be seamlessly refinanced if another lender offers better terms, creating a fluid, competitive environment that continuously improves borrower conditions. As Gondi themselves note, “we’ve seen the lender base at GONDI start to shift from individuals to professional funds underwriting at scale. As more capital enters, rates compress, and suddenly borrowing becomes attractive to a much broader group of holders. A 12% APR loan opens doors that a 25% loan never could.

Equally important is what this refinancing trend says about collateral quality. The willingness to refinance against the same NFTs, rather than forcing liquidation, signals growing confidence in the durability of blue-chip collections like CryptoPunks, Chromie Squiggles, and XCOPYs. Lenders increasingly treat these assets as reliable stores of value, stable enough to support multiple loan cycles. This evolution in perception has helped consolidate collateral flows around a handful of top-tier collections, a trend that becomes clear when loan volume is broken out by collection. As can be seen below, 97.2% of loan volume is concentrated in just five collections on Gondi, namely CryptoPunks, Chromie Squiggles, Autoglyphs, Wrapped SuperRare’s and Fidenza by Tyler Hobbs.

Gondi: Loan Volume by Collection



Source: Dune Analytics, @gondi_protocol

Another structural edge of onchain credit lies in its transparency. As Gondi put it, “onchain, every repayment, default, and underwriting decision is visible. Good actors rise to the top, bad actors can’t hide. That openness creates more trust and healthier competition than traditional credit ever allowed.” This dynamic enforces discipline among borrowers and lenders and accelerates market efficiency, with strong actors quickly building credibility, while weak actors are filtered out.

Looking ahead, the most important catalyst will be the scaling of liquidity, with Gondi noting, “the next catalyst is liquidity plus flexibility. As more capital flows in, we’ll see the mechanics that make onchain credit unique, like sale-and-repay, where an NFT can be sold mid-loan and the transaction automatically repays the lender, become widely adopted.” These trustless, atomic flows are impossible in traditional credit, but they reduce friction, expand optionality, and make it rational for more wealth to be held in digital assets. In the same way that access to cheap mortgages transformed real estate into a mass asset class, programmable credit could reinforce and accelerate the rise of digital assets as a mainstream store of value.

6.

Onchain Structured Product Strategies

I. Defining Onchain Structured Product Strategies

Structured products onchain are similar to the traditional form of structured products, in that, simply put, they're products that package derivatives and yield strategies into defined payoff profiles. Typically, they utilise growing areas of DeFi such as options, futures or yield splits to create these structured exposures which could be covered calls, cash-secured puts, basis trades or Pendle-style fixed vs floating yield. As with their traditional counterparts, the purpose here is to provide capital allocators with the ability to take directional or volatility views, which could be betting on price stability, volatility, or steady yields, as opposed to merely taking a long or short view on price, with predefined risk and return characteristics.

In terms of where these products sit in the DeFi stack, we're generally looking at protocols spread across two layers, those which are standalone financial instruments, such as options protocols like Aevo, Lyra and Dopex, and those that manipulate existing DeFi instruments in a 'DeFi Lego' style protocol, such as yield tokenisation platforms like Pendle and Spectra. Either way, these protocols typically act as 'end products' at the top of the DeFi stack, pulling liquidity from base layers such as DEXs and lending protocols and then wrapping them into tailored exposures. As such, the entire product depends on liquidity pools, oracles and underlying asset exposure that spans the whole of onchain assets, ranging from LSTs to RWAs and stables.

II. History and Evolution of Onchain Structured Product Strategies

Structured products onchain trace their roots back to the earliest experiments with options protocols in 2020. Projects like Opyn and Hegic proved, albeit with limited liquidity, that options could be created and settled natively on Ethereum. Adoption for these protocols was, however, limited by clunky interfaces, shallow liquidity, and a lack of institutional interest. These early designs were important proof-of-concepts but fell short of providing a scalable framework for structured strategies.

The real breakthrough came in 2022 with the rise of automated options vaults. Ribbon Finance (now Aevo) and Dopex pioneered vaults that packaged strategies such as covered calls and cash-secured puts into accessible, automated products. For the first time, retail investors could participate in exposures that in traditional markets were reserved for accredited clients buying structured notes from investment banks. Capital flowed into these vaults during the bull market, though bear market volatility revealed shortcomings. These centred around vaults typically selling options too cheaply, leaving depositors exposed when markets moved aggressively. This triggered an important wave of refinement in strategy design, including improved strike-selection algorithms, more conservative risk sizing, and better hedging mechanisms.

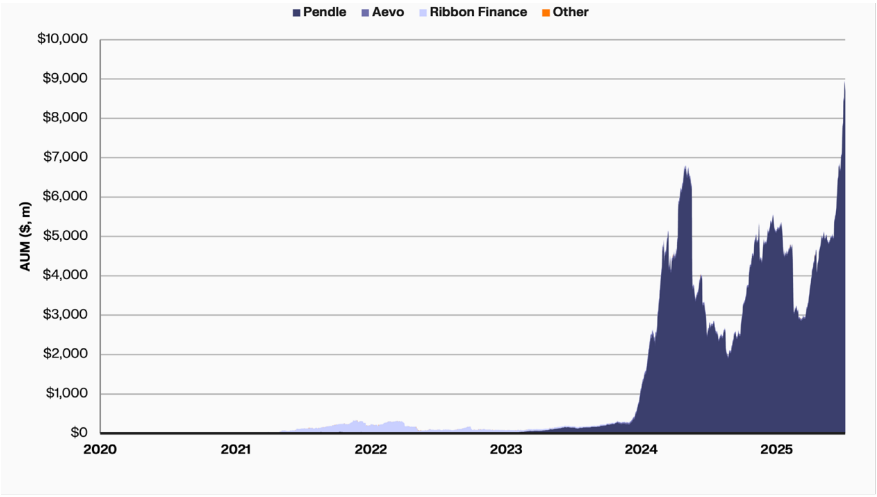
By 2024, structured products onchain had begun to mature. Pendle introduced yield tokenisation, splitting principal and yield into separate assets, which allowed investors to trade fixed versus floating yield exposures. This marked a fundamental shift in which structured products were no longer static, single-purpose instruments, but instead liquid, composable building blocks that could be rehypothecated across DeFi. Suddenly, a vault position could serve as collateral, be traded in secondary markets, or be plugged into entirely new strategies. Pendle's model in particular gained traction in stablecoin and liquid staking markets, where secondary liquidity created a thriving market for structured yield.

DAOs began using structured vaults as treasury tools, allocating governance capital into covered call or basis trade strategies to generate delta-neutral income. At the same time, regulatory clarity attracted the first wave of institutional pilots, with banks and funds testing tokenised structured products under compliant, sometimes whitelisted, frameworks.

Today, structured products stand as one of the most polarising categories within onchain asset management. On the one hand, you have tokenised yield, which has found product-market-fit and has accumulated a wealth of AUM. On the other hand, you have an underdeveloped options and other structured products industry onchain that's nascent and yet to establish a meaningful user base.

II. Pendle Dominance: The AUM Growth of Onchain Structured Product Strategies

Onchain Structured Product Strategies AUM by Protocol
2020 - 2025



Source: Dune Analytics, Keyrock Intelligence

Onchain structured products AUM is slightly varied from the other strategies we've been assessing, in that it's been accelerating since 2024, as opposed to standalone resurgence in 2025, and it's dominated by one player. The overwhelming driver of this growth has been Pendle, which has effectively cornered the market by standardising the mechanics of principal and yield token splits. This simplicity, combined with liquid secondary markets and integrations with yield-bearing assets like Ethena's sUSDe, has created a feedback loop that continues to draw capital.

By contrast, protocols that tried to build around options vaults or derivatives, such as Ribbon Finance and Aevo, have struggled to sustain traction. Their products have faced liquidity fragmentation, high implied volatility, and user fatigue with strategies that failed to consistently outperform. The result is an imbalance in which the concentration underscores both the strength of Pendle's model and the difficulty of scaling more complex onchain options strategies, a gap that remains an open question for the future evolution of this segment.

III. Comparing Onchain Structured Product Strategies to Traditional Finance Counterparts

Onchain structured products are designed to provide more complex financial products that go beyond simple lending or staking, by constructing yield or payoff profiles, often combining options, swaps, or fixed maturities into packaged vault strategies. The primary purpose of these onchain instruments is to enhance yield, hedge exposure, or create customised risk-return profiles in a way that is accessible and automated for onchain users. These strategies can take the form of covered call vaults, principal-protected note structures, or tokenised payoff tokens that split fixed and variable yield streams.

Onchain structured products earn yield through the tokenisation of future yield streams or by selling crypto option premia, e.g., splitting principal and yield tokens on Pendle or rolling covered call vaults. What's important to note about their traditional finance counterparts is that structured products generally mean different things to different people depending on their focus within the industry. That said, structured products generally harvest yield from option-writing strategies on equities, while structured notes package derivatives into fixed coupons or payoff profiles sold via banks. This is the framing we will use within this report.

To identify appropriate comparators, we looked across traditional finance structured yield products. Potential peers include option-income exchange-traded funds (OIFs), structured notes offered by investment banks (SNs) and principal-protected products (PPPs). Each of these instruments shares the same underlying mandate as onchain structured products, but they differ in execution.

Potential Comparator	Comparative Relevance	Comparative Shortcomings	Overall Suitability
Option-Income ETFs (OIFs)	Both use derivatives to generate additional yield on top of a core asset. Return drivers are similar in that they're option premia.	ETFs operate on listed equities with regulated custodians, while onchain vaults run fully automated option sales in crypto markets.	Primary comparator
Structured Notes offered by IBs (SNs)	They package derivatives into payoff profiles (e.g., yield-enhanced notes, principal-protected).	Typically bespoke, issued via dealers, and illiquid. Onchain vaults are permissionless, liquid, and composable.	Secondary comparator
Principal-Protected Products (PPPs)	Similar to principal-protected structured vaults emerging onchain, combining a safe yield with optional upside exposure.	Traditional products use bonds and options in offchain markets. Onchain versions replicate via stable lending and tokenised options.	Less reasonable comparator

For onchain structured products, the primary comparator is OIFs, as both strategies share a common goal of systematically enhancing yield through option premium collection. Examples of OIFs include covered call ETFs and similar wrappers, which represent mature, liquid traditional financial products. Onchain structured vaults such as Pendle operate in much the same way, in that they package derivative exposures into investable tokens. The parallels are rooted in the economic function of yield enhancement, cash flow mechanics driven by option premiums, and relative liquidity in secondary trading, albeit in scope with relative to on and offchain depth of liquidity. The key divergence, however, is in the underlying asset base. ETFs are built on equities, while onchain vaults derive their returns from derivative products on digital assets, primarily stablecoins and liquid staked assets.

A secondary comparator is SNs, which more closely capture the bespoke payoff element of many of the onchain products offered today. Whereas OIFs focus on a systematic overlay, SNs in traditional finance often combine fixed income instruments with derivative overlays to deliver principal protection or leveraged upside. Onchain equivalents, particularly Pendle's Principal Tokens, function similarly by splitting and packaging yield streams into custom payoff profiles. The differences, though, are that SNs are dealer-distributed, illiquid, and largely opaque, while onchain tokens are permissionless, liquid, and composable across DeFi.

OIFs provide the best benchmark for yield-driven strategies. As such, OIFs will be compared with onchain structured product strategies by leveraging weighted averages for fee and performance comparisons, in conjunction with qualitative assessment.

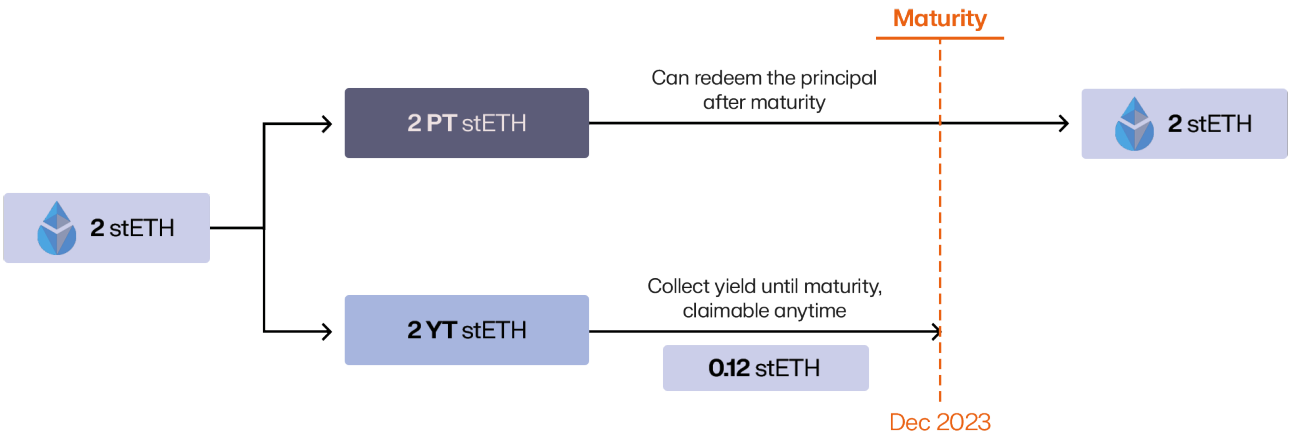
IV. Comparing Onchain Structured Product Strategies to Traditional Finance Counterparts

Onchain structured products generally mirror their traditional finance counterparts in form, but diverge sharply in function, offering a suite of advantages that reflect the unique properties of decentralised infrastructure. Transparency, as with other strategies, is a key advantage here. Whereas traditional structured notes typically disclose only the payoff formula, obscuring collateral allocations and counterparty risks, onchain equivalents provide real-time, block-by-block visibility into collateral, positions, and performance. This radical transparency allows allocators to scrutinise exposures in a way that is structurally impossible in traditional markets, and is an immediate value add in an asset class often criticised for its opacity.

Liquidity and composability also set onchain structured products apart. In traditional finance, most structured notes are illiquid until expiry, barring some relatively illiquid secondary markets on select products, offering investors little flexibility once a position is taken. Onchain, composability is built in, ensuring that positions can be unwound or traded dynamically, often with continuous secondary market activity. The result is a far more flexible and adaptive product, where capital is not locked into static instruments but can instead be repositioned in response to market conditions.

Programmability further enhances efficiency. Smart contracts execute payoff structures and settle options atomically, eliminating counterparty dependency and removing the layers of manual execution and reconciliation that characterise traditional bank desks. In doing so, onchain products collapse settlement cycles from days to seconds, while providing complete auditability of all positions and returns. For allocators, this ensures not only greater efficiency, but also far lower costs compared to heavily intermediated traditional structures.

Moreover, onchain, payoff tokens, in which I am referring to tokenised yield components, can be rehypothecated across a variety of DeFi protocols, such as borrowing stablecoins against them to loop further exposure into the strategy, LPing them into DEX liquidity pools, or staking them in other vaults. This composability turns onchain structured products into liquid 'DeFi Lego' blocks, rather than terminal instruments for static hedging or exposure. The result is one of capital efficiency, in which investors can hold and redeploy exposure simultaneously. A tangible example would be depositing sUSDe into Pendle, and receiving PT-sUSDe and YT-sUSDe. You could then sell the PT to lock in fixed yield upfront, while simultaneously LPing the YT-sUSDe in Pendle's own AMM. This allows you to speculate on yield upside and collect trading fees and incentives from the YT pool, turning a single yield-bearing token into multiple income streams.



Source: Pendle

While structured products onchain have opened new opportunities for tokenised yield trading, there remain clear drawbacks relative to their traditional finance equivalents. One of the most significant is the issue of market depth and liquidity. Onchain options markets are still shallow compared to equity or FX options in traditional finance, limiting both the range of strikes and maturities available. The result is wider spreads, higher slippage, and constrained position sizing for onchain allocators. For institutional allocators, this creates practical barriers to deploying capital at scale, in stark contrast to traditional alternatives that benefit from deep and mature liquidity pools.

Another drawback is the narrow maturity and instrument set currently available onchain. Pendle and similar protocols focus on short-dated maturities, typically ranging from 21 to 84 days, with a relatively standardised payoff structure based on yield tokenisation. Structured notes in traditional finance can span months to years and offer a broad menu of payoffs, such as barriers, autocallables, and capital-protected notes. This difference leaves onchain products more tactical in nature, rather than strategic allocation tools for long-term portfolio construction.

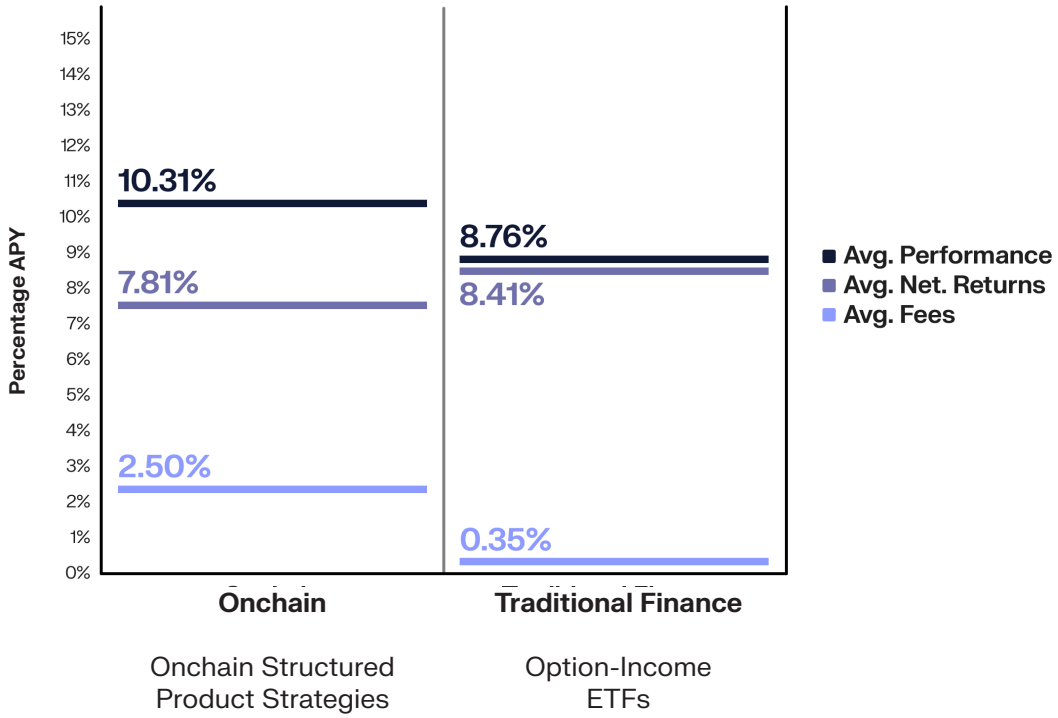
Risk management infrastructure is also less developed onchain. Whereas banks issuing structured notes run full hedging desks, with balance sheet support, counterparty risk management, and compliance oversight, onchain protocols rely almost entirely on smart contracts to enforce payoffs. This is the infrastructure that underpins the efficiencies we hailed as a benefit to onchain structured products, but it also removes the layers of risk mitigation and institutional oversight that traditional allocators are accustomed to.

V. Onchain Structured Product Strategies Fees and Performance

For the analysis of onchain structured products, according to our comparative analysis in prior sub-sections, we will be comparing against Option-Income ETFs.

Onchain Structured Product Strategies

Average Performance & Fee Comparison



Source: Pendle, JPMorgan Equity Premium Income ETF, Global X Nasdaq 100 Covered Call ETF

Onchain structured products delivered a weighted-average gross return of **10.31%**, compared to **8.76%** for their traditional peers. Within DeFi, Pendle vaults highlight both the innovation and dispersion, with the sUSDe 69-day maturity vault, managing over **$736 million**, posting **8.24%**, while vaults such as the vkHYPE 55-days maturity vault and pUSDe 27-days maturity vault reached **13.10%** and **13.32%** respectively. Traditional benchmarks such as the JPMorgan Equity Premium Income ETF, which at **$41 billion** AUM is one of the largest option-income funds globally, generated **8.40%**. Meanwhile, newer entrants like the Nasdaq-100 High Income ETF returned **12.19%** on **$4.7 billion**, showing that traditional finance can also capture elevated yields during periods of high equity volatility. The comparison underscores the advantage onchain products have in dynamically harvesting short-dated volatility premia across assets, while traditional finance products scale to tens of billions with more muted but stable outcomes.

The most visible trade-off for onchain structured products comes from fees. DeFi vaults averaged **2.50%**, compared to jus**t 0.35%** for the traditional benchmarks. The higher cost reflects the complexity of structuring, rolling expiries, and managing liquidity pools onchain, whereas option-income ETFs benefit from economies of scale and efficient execution pipelines. In effect, DeFi allocators are paying a premium for composability, transparency, and flexibility, while ETFs deliver a similar economic function at far lower cost.

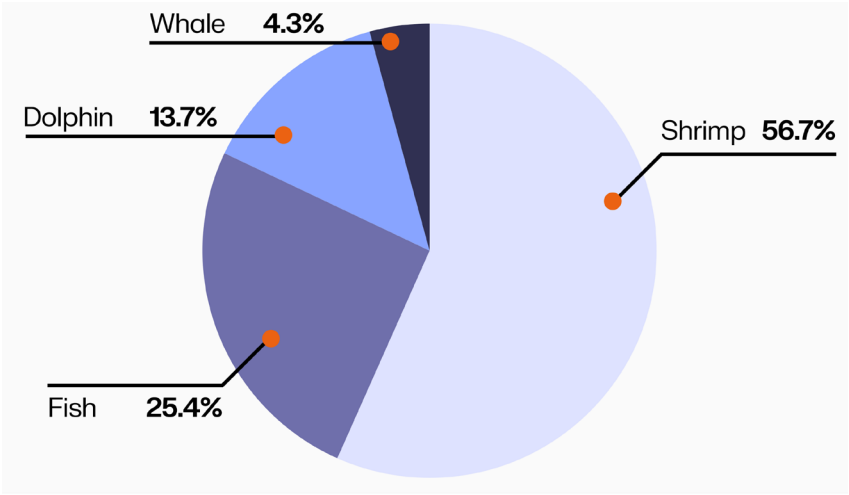
Once fees are accounted for, the balance shifts slightly, with onchain structured products netting **7.81%**, while traditional funds returned **8.41%**. This suggests that, at present, traditional finance products offer a more competitive balance of yield and cost efficiency. However, onchain strategies remain differentiated by structural features, with real-time transparency into collateral and performance, permissionless access, and composability. Investors can rehypothecate PTs and YTs across DeFi, using them as collateral, trading them in AMMs, or layering additional yield strategies, something unimaginable with static, dealer-issued notes or ETFs.

Looking forward, as DeFi options markets deepen and protocols refine liquidity design, we expect gross yields to remain attractive relative to TradFi benchmarks. The question is whether fee compression and scale can close the net gap. For allocators, this remains a frontier category, in that it is structurally riskier and smaller in scale than ETFs, but uniquely enabled by the programmability of DeFi.

VI. Allocator Profiles to Onchain Structured Product Strategies

While in transitional finance these types of products are typically considered advanced, and thus are gatekept to professional investors, in DeFi these products are accessible to all in a permissionless format. In line with this, there is a more sophisticated education system around them, which has led to a greater cohort of retail investors leveraging the sophisticated products to enhance returns. This is evident in the count of address types, which shows a skew towards smaller depositors, referred to as Shrimp, who've deposited under **$10k** per transaction, at **57%** of address count.

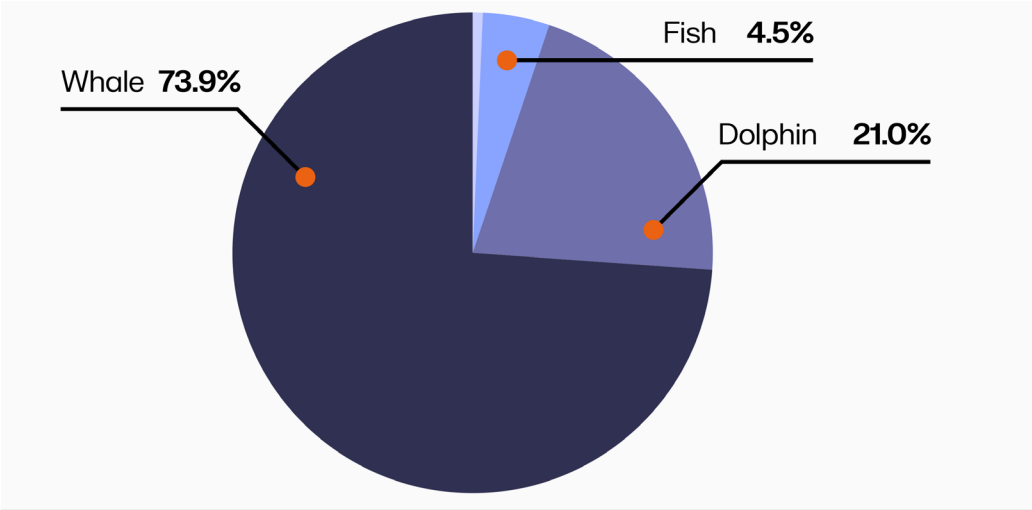
Structured Product Strategies: Depositor Count



Source: Dune Analytics, Keyrock Intelligence

As with all strategies analysed, however, we see that when looking through the lens of capital deployed, there's a heavy skew towards larger allocators, with Whales, those deploying over $1 million per transaction, accounting for 74% of AUM. DAO treasuries and other large pools of capital will typically utilise structured products to construct delta-neutral products, more aligned with their capital preservation strategies.

Structured Product Strategies: Supply Amount



Source: Dune Analytics, Keyrock Intelligence

VII. Catalysts for Onchain Structured Product Strategies Growth

Structured products have benefitted from a wave of innovation over the past two years that has transformed them from experimental products to serious yield instruments. The most important catalyst has been the maturation of yield tokenisation, led by Pendle.

Looking forward, the payoff tokens mentioned previously, that can be rehypothecated across DeFi, staked as collateral, or layered into other vaults, are something that is impossible in traditional markets where payoff profiles are siloed within broker-dealer balance sheets. This ability to unbundle and recombine yield streams is already creating entirely new classes of strategies, and allocators are beginning to recognise the structural advantage. We believe the continued growth of composability avenues will drive growth in this strategy, with trust of onchain protocols and education being the bottlenecks that need to be addressed to fully unlock it's potential.

Another driver is the growth of core components of structure products, LSTs, RWAs and stablecoins. Vaults that stack staking yield with options income, for example, create 'yield-on-yield' products that blend base-layer returns with derivative overlays. For allocators, these hybrid structures offer both a higher return ceiling and diversification of risk sources, without requiring constant rebalancing. This has proven particularly attractive to DAOs managing treasuries and to institutions seeking enhanced cash management tools that remain onchain.

Regulation is also moving in the right direction. The EU's DLT Pilot Regime and Singapore's Project Guardian both explicitly cover tokenised derivatives, providing a clearer legal pathway for structured payoffs to be created and traded onchain. In the U.S., the withdrawal of restrictive SEC staff statements has paved the way for broker-dealers to interact with tokenised options and structured notes under defined compliance frameworks. These developments reduce the perception gap that has long held institutions back, reframing structured products as increasingly legitimate.

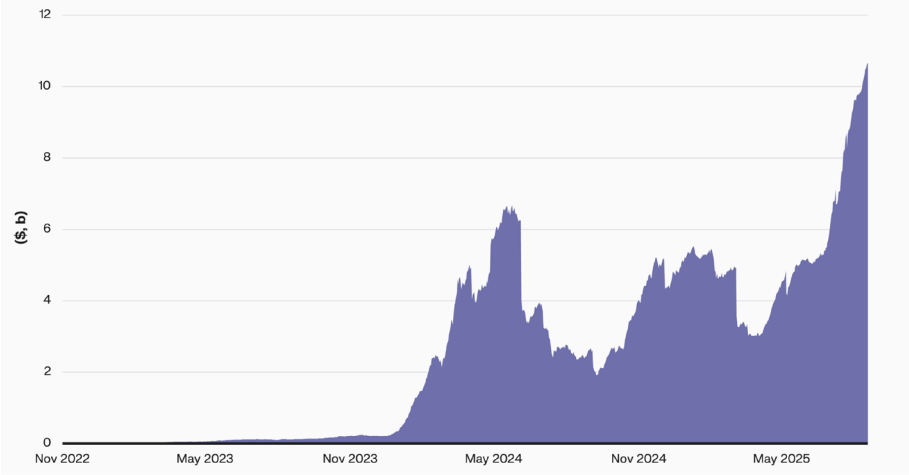
Finally, the signalling effect of institutional involvement cannot be overstated. Market makers and Traditional Finance desks are beginning to backstop liquidity for Aevo and Katana vaults, committing balance sheet resources that reduce fragility and make allocators more confident in both execution and exit. Liquidity bootstrapping and secondary-market depth transform structured vaults from boutique products into scalable portfolio components. For institutions accustomed to opaque OTC structures with limited liquidity, the transparency and tradability of onchain alternatives is a compelling upgrade.

Together, these catalysts suggest that structured products are poised to move from the periphery of onchain experimentation into the core of institutional asset management.

PENDLE

Pendle is the largest onchain structured products protocol, and has seen extraordinary growth, both in AUM, as well as across the assets and networks they facilitate. The premise is simple, it enables users to trade tokenised future yield by splitting a yield bearing onchain asset into two components, the Principal Token (PT), which represents the underlying asset, and the Yield Token (YT), which represents the future yield generated on the principal.

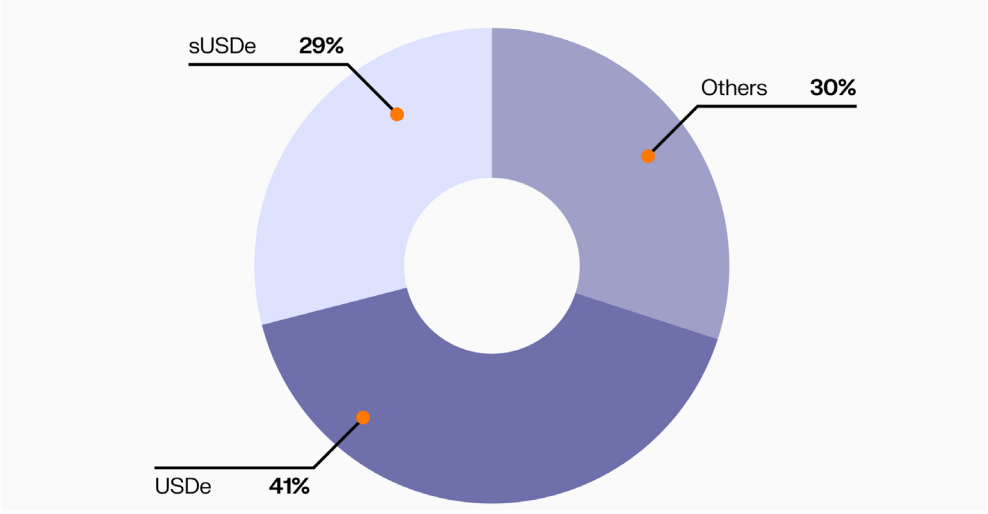
Pendle: Assets Under Management



Source: Dune Analytics, @p_team

The mechanism for this onchain product is fairly simple, and given that Ethena, the yield-bearing synthetic dollar protocol, accounts for **70%** of pendle's **$10.8 billion AUM**, we'll use Ethena's sUSDe to explain it. The user deposits a unit of sUSDe into the Pendle protocol, specifying a network, which could be Ethereum, HyperEVM or Berachain, and a duration for which they want to split their yield-bearing token into PT and YT derivatives. The current duration options range from 21 to 84 days. Pendle then splits this sUSDe deposit into PT and YT derivatives, which are then returned to the user, both liquid and tradable on secondary markets as standalone assets.

Pendle: Assets Under Management



Source: Dune Analytics, Keyrock Intelligence

The two tokens trade in slightly different ways, with varying purposes depending on the market participants. Let's assume both assets are sold by the original depositor to lock in both the value of their underlying sUSDe, plus the yield they would have gained from staking it for the specified duration.

The PT will typically trade at a slight discount to the face value of the underlying asset, the price paid by the original depositor for the convenience of collecting their capital up-front. Therefore, if held to maturity, the purchaser of the PT will gain predictable, fixed yield, akin to a zero-coupon bond. If non-dollar pegged assets are deposited to Pendle, the PT also takes on the underlying asset price risk.

The YT is where the more complex trading strategies come in, by purchasing the yield at a specified rate from the original depositor, the purchaser is making a bet that the yield will be higher than the defined purchase yield, with a target to pocket the spread. This allows for speculation or hedging on future yield rates, similar to fixed income derivatives.

"In Traditional Finance, structured products are pre-packaged investments that combine bonds and derivatives to create a tailored payoff, say capital protection plus some equity upside. Onchain, the logic is the same, but the packaging is done via smart contracts instead of banks or fund managers. For instance, a yield-bearing asset can be split into a "principal" portion and a "yield" portion, allowing them to be traded separately. That is essentially what Pendle enables. These components can also be combined with options or used as collateral in money markets like Aave. This level of composability is unique to DeFi, where products can be mixed and integrated permissionlessly, unlike Traditional Finance where complex strategies are often limited to a small group of investors." says TN Lee, CEO at Pendle

What's particularly special about Pendle isn't the financial instruments that it creates, given we've seen these exist in traditional finance for decades, but rather the fact that Pendle has rebuilt these financial products in a way that's open, programmable, and accessible to anyone, not just private banking clients.

Clearly, composability is a breakthrough here for onchain structured products, again in a way that is limited in traditional finance. With the ability to redeploy both PT and YT assets into DeFi, be that as collateral in Aave, or bundled into automated vaults, the onchain design results in significantly higher capital efficiency.

What's interesting with structured products onchain is that there are some distinct similarities between customer base both onchain and offchain, as highlighted during our interview with Pendle, "while any user can technically build structured products, we've seen a pivot towards sophisticated players acting as curators for retail investors - akin to how it works in traditional markets."

If we look to the future, and how structured products, with a particular focus here on Pendle, could shape onchain asset management, one key element to highlight is that PTs are strong contenders to be a driving 'entry ramp' for Traditional Finance allocators. Given PTs mimic zero-coupon bonds and offer predictable returns, these are derivatives traditional allocators are familiar with, that bare less risk and prior technical knowledge than alternative onchain products, "fixed yield instruments are likely to be the natural entry point for traditional allocators, given their familiarity with bond-like payoffs and their lower risk profile compared to variable yield."

TN Lee, CEO of Pendle took this a step further, stating that, "composability remains an unexplored vertical. Hybrid onchain and offchain models could enable liquidity to move seamlessly between DeFi protocols and traditional institutions, positioning structured products as the bridge between the two systems." In this future it's possible that we see onchain yields decoupled from their underlying assets and ported between the two financial ecosystems, creating a new route to grow the onchain pie of capital.

Aevo

Aevo, formally known as Ribbon Finance, is a decentralised options exchange, running on a custom EVM rollup. Alongside this, Aevo offers a variety of structured product strategies, as well as some non-structured product features such as a perpetual exchange. Note, for this report we'll only focus on Aevo's structured product offerings.

At their core, Aevo's structured product offerings package options strategies into automated vaults, enabling users to access premia-based yield without the need to actively manage derivatives positions themselves.

Aevo's covered call vaults allow depositors to earn yield by selling upside exposure on an underlying asset such as ETH. These vaults systematically write call options on the Aevo protocol, and distribute the premium as yield, mirroring the mechanics of popular options-income ETFs in traditional markets. Alongside these, Aevo also offers put-selling vaults, which generate return by underwriting downside risk through cash-secured puts, offering investors exposure to option premia in exchange for collateralising the vault with stablecoins or ETH.

In addition, Aevo has launched a basis trade vault, which captures spreads between spot and perpetual markets. By running a delta-neutral position, that is long spot against short perpetuals, the vault harvests funding rate premia that emerge from imbalances in perp markets.

While the products offered by Aevo are innovative and represent an exciting corner of onchain asset management, their adoption to date has been minimal. Growth has plateaued in part due to a lack of demand for the underlying options onchain, resulting from a bootstrapping issue in which onchain there are limited strikes and maturities, pushing demand offchain. This is evident both in the volume of Aevo's onchain options, with BTC and ETH in the low hundreds of thousands of dollars a day, and in the underlying strategies AUM, with covered-call and selling-put strategies sitting at only a few million dollars a piece.

In the following sections, we will quantify capital concentration and examine how strategies and asset exposures are evolving in real time to form the statistical foundation for our growth forecasts.

7.

Capital Flows, Fees and Performance

7. Capital Flows, Fees and Performance

In finance, capital always votes with its feet, and in asset management specifically, it chases liquidity, low costs, and alpha. These three forces are the levers that decide whether onchain managers can compete with, and ultimately outperform, their traditional counterparts. This being said, capital flows is clearly the most important signal for revealing adoption and trust, with the extent to which we see sustained inflows into vaults, protocols, and tokenised products demonstrating investors belief levels in the infrastructure and the risk-return profile.

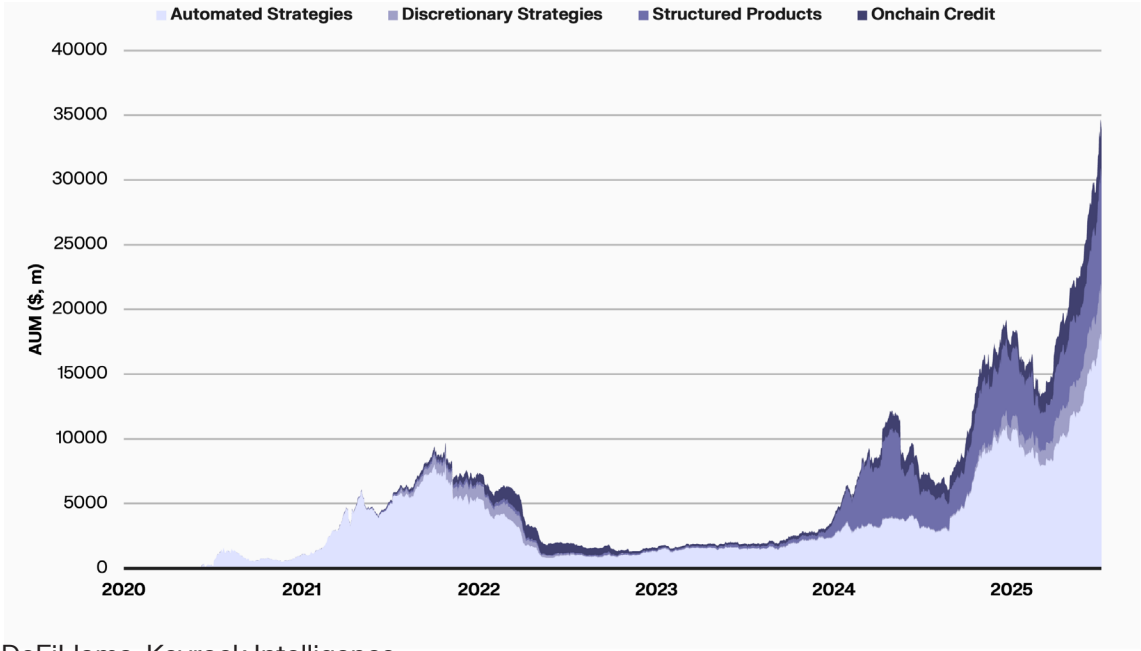
Fees dictate whether products can win on net returns, and once comfortable with infrastructure and risk-return profile, this is a real consideration for capital allocators. In Traditional Finance, management fees have already compressed to as low as 3-5 bps for passive ETFs, while many active funds still sit nea**r 100 bps**. We believe, as we will lay out in the following sub-sections, that onchain managers have an opportunity to leapfrog this curve, using automation to deliver competitive gross returns at structurally lower cost. Net performance is the ultimate retention mechanism, given that even the most efficient, well-capitalised manager will bleed assets if they can't deliver excess returns over time.

Each lever reinforces the others. Lower fees improve net performance, which drives flows. Scale from flows can, in turn support more competitive pricing and enable access to differentiated strategies. But the inverse also holds true. Underperformance triggers redemptions, which push up unit costs, further eroding competitiveness. This is why flows, fees, and performance form the core of our comparative analysis. Together they reveal where onchain asset management is gaining real ground, where structural advantages exist, and where traditional incumbents still hold the edge.

I. Capital Flows

Capital flows are the most immediate barometer of conviction in asset management, whether traditional or onchain, and they also happen to be one of the most impressive charts for onchain asset management. In the onchain segment, the story of the past year has been one of acceleration. As of today, total onchain AUM across the strategies we track has reached **~$35 billion**, a phenomenal increase from the start of 2025 when it stood at **~$16 billion**. This of course will have been aided by market sentiment shifts throughout this period, but nevertheless, the growth is compelling.

Onchain Asset Management AUM by Strategy Type



Source: DeFiLlama, Keyrock Intelligence

Perhaps more important than the absolute figures is the breadth of this AUM growth across strategies. Every major strategy category has expanded, with some recording triple-digit YTD gains. Automated onchain yield strategies are up **93.6%** YTD, structured products have grown **95.5%**, onchain credit has surged **147.6%**, and discretionary onchain strategies have grown an extraordinary **738.1%**, albeit from a much smaller starting base.

What stands out in 2025 though is how capital deployment has become both more diversified and more strategically coordinated. In prior cycles, inflows tended to cluster around a single 'hot' category, for example yield farming in DeFi Summer 2020, NFT funds in 2021, or tokenised treasuries in 2023. This year, multiple categories have drawn meaningful capital simultaneously, suggesting a broader structural shift rather than a single fad. What's evident from this is that the benefits of onchain asset management apply across the board, in all strategy types, no matter how you manage the assets, or the risk profile you target. Onchain, the 'asset management product' itself has been upgraded. The expansion of discretionary onchain strategies in particular reflects renewed confidence in discretionary managers who can rotate capital across protocols, hedge risk dynamically, and capture idiosyncratic yield.

Automated onchain yield strategies have almost doubled in size YTD, reaching multi-billion dollar scale as allocators increasingly favour low-touch, programmatic yield generation. Protocols like Yearn, Beefy, Veda, and aggregation layers such as Morpho and Sommelier have benefited from a shift toward 'set-and-forget' vaults that rebalance automatically. Much of the recent growth has been catalysed by deep integrations with major lending markets and DEXs, allowing vaults to access stable, high-quality yield sources without manual intervention. DAO treasuries have begun allocating to these passive vaults as a treasury management tool, exemplified by MakerDAO's Spark Protocol moving **$50 million** into Maple's syrupUSDC vault via a Morpho integration, effectively linking passive aggregation with onchain credit.

As mentioned, discretionary onchain strategies have been the fastest growing strategy sector YTD, driven by a shift in institutional sentiment and their ability to bridge this institutional capital into onchain strategies. Managers like Re7 Labs and MEV Capital have attracted inflows by demonstrating the ability to actively rotate between opportunities in real time, hedge exposures, and capture basis and funding spreads that are inaccessible to static vaults. The surge in active mandates reflects a broader allocator belief that discretionary managers can navigate a fragmented yield environment more effectively than code-only strategies.

For structured products, we're seeing growth powered by Pendle in particular, having become a key venue for fixed and variable yield splits. The launch of Ethena's USDtb Treasury-backed stablecoin added a new layer of yield stability and attracted more risk-averse capital. Aevo has also been a key player here, with its covered call and cash-secured put vaults with built-in liquidity bootstrapping, giving allocators confidence in both entry and exit. This combination of higher-quality underlying assets and improved secondary market liquidity has made Structured Products far more accessible to capital allocators than in prior cycles.

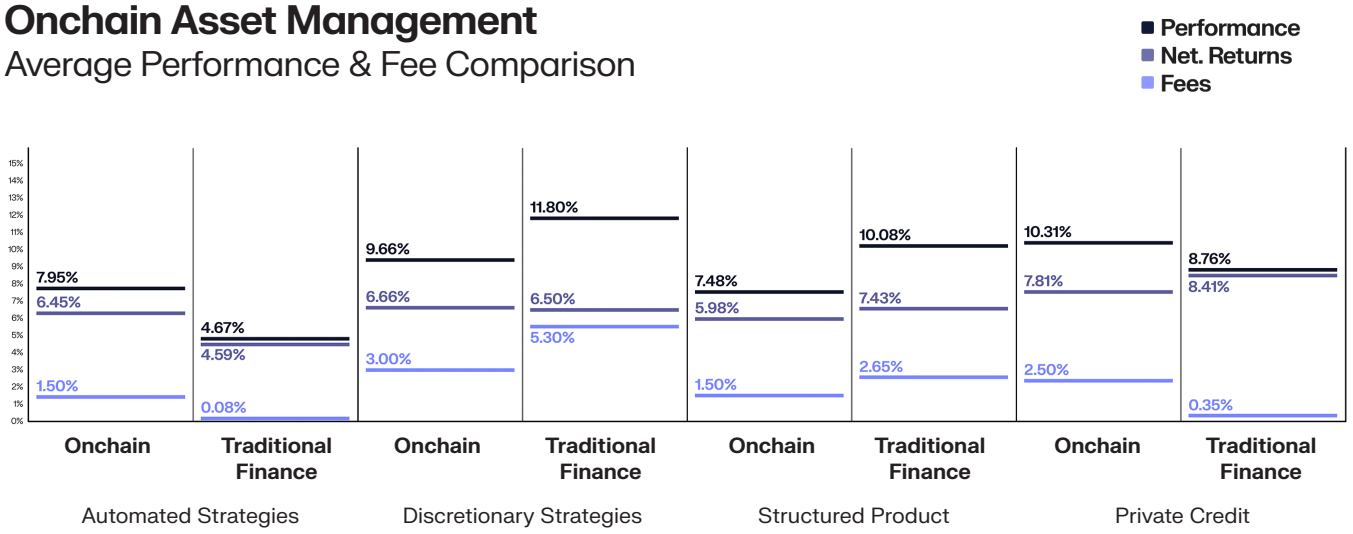
Onchain credit's growth can be primarily accredited to Maple and Clearpool. Maple's syrupUSDC vault has been the breakout product of 2025, growing from launch to over **$2.4 billion** AUM in less than a year. Its appeal lies in its permissionlessness, as well as its ability to pair competitive yield with instant withdrawal liquidity via Uniswap and Balancer pools, solving one of the historic bottlenecks of onchain credit. Clearpool has also expanded its whitelisted borrower base, onboarding new institutional credit counterparties, while NFT-backed credit platforms like Gondi have carved out niche but fast-growing segments, diversifying the category's borrower profiles and collateral types.

II. Fees and Performance

Measuring whether onchain asset management can truly compete with, and outperform, its traditional finance counterparts requires more than anecdotes about yield opportunities or cost efficiency. It requires a like-for-like comparison of gross returns and costs, mapped across equivalent strategy types. In this section, we aggregate the fees and performance analysis conducted in the above strategy section, to make a complete comparison.

Onchain Asset Management

Average Performance & Fee Comparison



As aforementioned, to produce this analysis we identified the top three vaults by AUM for each protocol in our dataset, then calculated the weighted-average APY at the strategy level. This ensures that each figure reflects the products actually attracting the most capital, rather than niche or experimental vaults. The strategy pairings with their traditional finance equivalents are consistent with earlier references in the report.

The data shows that gross yields are generally higher onchain than in traditional finance, particularly in automated passive strategies and structured products. Discretionary strategies, meanwhile, deliver performance broadly in line with traditional hedge funds, demonstrating that onchain managers can compete with established players despite operating at smaller scale. The main area where onchain lags is credit, where traditional private credit funds deliver stronger gross and net performance, reflecting their maturity, underwriting depth, and scale.

Fees are a key differentiator here. Onchain passive strategies face the steepest fee drag, averaging 1.50% compared to just 0.08% for traditional equivalents, nearly a 20x gap. Even so, higher lending rates and programmatic reinvestment allow these vaults to maintain a net yield advantage of ~186 bps. Discretionary and credit strategies onchain benefit from leaner fee structures than their traditional peers. Hedge funds and private credit funds both carry layers of management and administrative costs, whereas onchain equivalents automate origination, servicing, and monitoring through smart contracts. Structured products are the exception, where onchain vaults charge significantly higher fees than option-income ETFs, which erodes their gross outperformance and leaves them slightly behind net of fees.

For allocators, the main takeaway is that onchain strategies remain competitive on a net basis across most categories, despite smaller scale and additional infrastructure risks. Automated yield vaults illustrate both the challenge and opportunity of fees, with current levels acting as a drag but likely to compress over time. Discretionary vaults show how composability and speed enable performance comparable to some of the world's largest hedge funds. Credit strategies highlight the importance of underwriting maturity but also the structural edge of transparency and real-time settlement. Structured products, finally, demonstrate the trade-off between innovation and efficiency: they provide unique flexibility and composability, but at a higher cost.

Onchain asset management strategies can deliver net returns that rival or exceed traditional finance, while layering in unique advantages such as transparency, liquidity, and composability. The spread is tightening, but allocators seeking differentiated exposures will increasingly view onchain as a credible complement, so long as they're able to get comfortable with some of the inherent risks and uncertainties.

8.

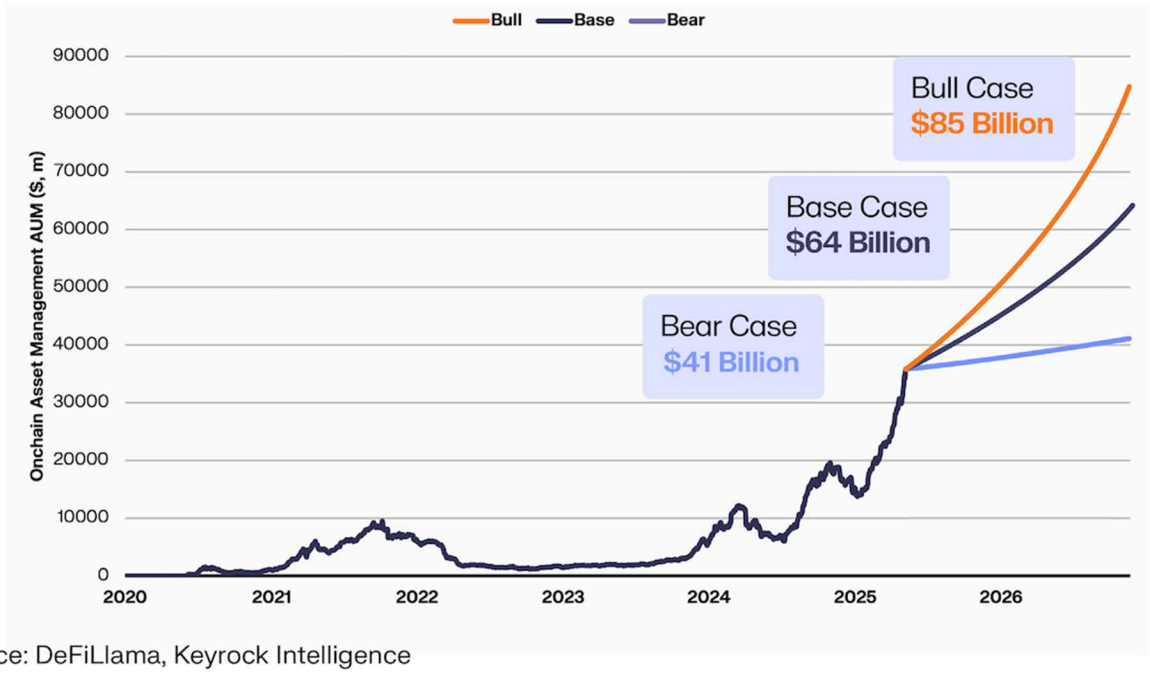
Forecasts and Trends

8. Forecasts and Trends

After a year of rapid expansion, onchain asset management enters the second half of 2025 from a position of strength. The acceleration in capital inflows over the past eight months has set a high base, with total AUM across the strategies we track more than doubling year-to-date. This forecast explores where that momentum could carry the market under three scenarios, namely bull, base, and bear, reflecting different combinations of macro conditions, digital asset market performance, and onchain-specific catalysts.

Onchain Asset Management AUM Forecast by Scenario

2020 - 2026



Source: DeFiLlama, Keyrock Intelligence

"Onchain vaults are seeing inflows of capital far faster than traditional digital asset funds. At the moment, onchain asset management is mainly yield-focused, but its liquidity, composability, and ease of transferability create a clear differentiation compared to offchain equivalents."

— Juan David Mendieta Villegas, CSO, Keyrock

Across all strategies in aggregate, the **bull case** projects AUM reaching **$85.1 billion** by the end of 2026, assuming YTD growth rates persist, supported by favourable macro conditions, sustained crypto market strength, and continued institutional adoption of onchain yield strategies.

The **base case** sees a more moderate path to **$64 billion**. This case assumes a constant Compound Annual Growth Rate (CAGR) from 2022 onwards, which provides a more realistic scenario in a future where the recent exponential growth cools slightly. This CAGR rate is **56.4%**.

The **bear case**, at **$41.6 billion**, models a more challenging environment where market volatility, yield compression, or regulatory delays slow capital deployment. This sees the growth rate slow dramatically, although not into negative territory. This is a result of the majority of capital in onchain asset management being USD-denominated, so in dollar-terms it's unlikely we'll see AUM declines unless capital is fully withdrawn, even in bear markets. Even under the bear scenario, the market retains positive momentum.

Automated onchain yield strategies remain the largest segment across all scenarios, reflecting its role as the default entry point for both retail and institutional capital seeking onchain exposure. In the bull case, it climbs to **$40.6 billion** by EOY 2026, supported by deepening liquidity on decentralised exchanges, the continued rise of liquid staking derivatives, and integration into traditional portfolio strategies. Even in the bear case, automated onchain yield strategies still reach **$27.3 billion**, underscoring its resilience to market slowdowns.

Juan David notes that the early dominance of yield-focused products mirrors traditional money market funds but with a critical difference in that tokenisation allows them to integrate directly into other protocols, magnifying inflows. This reflects why even under the bear scenario, automated strategies remain resilient.

> *"Alpha strategies have not yet seen major growth in onchain asset management, but they are the predominant force in hedge funds. Bringing pure alpha onchain, alongside onchain fund-of-funds models, represents one of the most exciting frontiers for the next two years."*
>
> — Juan David Mendieta Villegas, CSO, Keyrock

Discretionary onchain strategies benefits most from a sustained risk-on environment, growing to **$12.4 billion** in the bull case as more sophisticated strategies attract capital from institutions and high-net-worth individuals looking for yield diversification. In the base case, discretionary onchain strategies end at **$7.7 billion,** and in the bear case at **$4.8 billion**, reflecting its greater sensitivity to volatility and drawdowns compared to more passive approaches.

Structured products emerge as a high-growth category, reaching **$17.2 billion** in the bull case as onchain options, vault strategies, and principal-protected products mature and win adoption from both crypto-native and Traditional Finance allocators. Base and bear cases see the segment at **$14.5 billion** and **$9.8 billion** respectively, with growth driven by innovations in risk-adjusted yield generation and tokenised note issuance.

Keyrock sees structured products as a bridge between passive yield and alpha-seeking strategies, particularly as tokenised fund-of-funds concepts gain traction. These could enable allocators to rotate seamlessly across onchain strategies, a capability not possible in traditional finance wrappers.

Onchain credit sees significant expansion in the bull case to **$8.3 billion**, fuelled by demand for undercollateralised lending, credit delegation, and the growing integration of real-world borrowers. In the base case, AUM reaches **$7.4 billion,** while in the bear case it holds at **$4.7 billion**, with performance closely tied to borrower quality and stablecoin liquidity conditions.

> *"We can mix asset management processes with DeFi technology to become the largest onchain-based asset manager. Our vision is tokenised funds and our own fund-of-funds protocol, with $1 billion in AUM across USD, BTC, and ETH strategies."*
>
> — Juan David Mendieta Villegas, CSO, Keyrock

9.

Closing Statement

9. Closing Statement

The evolution of onchain asset management in 2025 has demonstrated that onchain strategies are a viable, scalable component of the global financial landscape. Onchain asset management is the blueprint for the next generation of capital markets, in that it is programmable, transparent, and composable by default. The breadth of its expansion across strategies clearly demonstrates how this is a market moving beyond experimental phases into sustained, scalable capital deployment. While challenges around regulatory clarity, risk management, and market infrastructure remain, the year's growth trajectory has established a strong foundation for continued expansion.

Looking ahead, the interplay between innovation, composability, and institutional adoption will define the sector's next phase. The growth we track today is representative of the early stages of an inevitable transition. In the coming cycle, our base case states that onchain strategies will move from **$35** to **$64** billion, and ultimately become embedded infrastructure for global allocators. The catalysts identified in this report, ranging from protocol-level product breakthroughs to structural shifts in DAO governance, suggest that the coming 18 months could be transformative for both market share and strategy sophistication. This momentum is underpinned by more robust governance, deeper liquidity, and a growing cohort of institutional allocators comfortable with onchain risk frameworks.

As onchain asset management strategies continue to compete with and complement their traditional finance counterparts, allocators will increasingly evaluate them not as an exotic nor excessively risky allocation, but as an integral part of diversified portfolios. As Juan David of Keyrock noted, success will mean becoming the reference point for how to take smart risks onchain. The institutions that embrace composable, programmable strategies will not just diversify portfolios, they will define the new frontier of asset management.

The shift underway is irreversible. Capital markets are being rebuilt and supplemented onchain, and those who adapt fastest will capture the opportunity of a generation.

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