

Keepr Whitepaper

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Abstract

Most people save less than they should, and the people around them are the strongest lever to change that. Keepr is a savings protocol, delivered as a Mini App in World App, that turns this social lever into a financial one. A member deposits WLD; the deposit earns on-chain lending yield, accrued continuously; the member keeps 75% of it. The remaining 25% is not a fee but a distribution budget: it first pays commissions to the members who brought the depositor in, at a rate set only by each sponsor’s own savings, and whatever is not claimed by commissions forms a pool that is returned to every depositor in proportion to their balance, Keepr keeping one quarter of that pool. Commissions cascade through a referral chain of unlimited depth but can never exceed the 25% collected on the account that generated them, so the network is funded strictly by yield already earned. Keepr’s own revenue is at most 6.25% of yield and falls as the network grows. We describe the yield source, the distribution rule, the tier curve, the cascade and its cap, and we compute when a member does better inside Keepr than saving alone.

1. Introduction

Under-saving is a worldwide condition, not a regional one. In the euro area, households save [14.3% of disposable income](#) (Q1 2026), a figure that hides a wide spread between a saving minority and a majority with little cushion. In low- and middle-income economies the gap is starker: [40% of adults saved in a financial account in 2024](#) and only 56% of adults worldwide could reliably find extra money in an emergency, according to the World Bank’s Global Findex 2025.

Two things stand in the way. The first is behavioural: saving is a decision that costs today and pays tomorrow, so it is easy to postpone. The second is structural: the products that pay a real return are often out of reach of small balances, or pay nothing on them. The Global Findex notes that only a fraction of formal savers earn interest on their balances at all.

The money people do put into crypto is modest. A [JPMorgan Chase Institute study](#) of about five million US bank customers found a median transfer into crypto platforms of about \$620, less than a week’s take-home pay, with only 15% of users ever committing more than a month’s income. This paper uses \$620 as its reference deposit.

Existing incentives address neither problem well. Bank referral bonuses are one-off, and crypto referral programmes are usually paid from token emissions or from the deposits of newcomers: they reward recruitment rather than saving and stop when growth stops.

Keepr starts from the opposite premise. The most effective savings interventions on record are social, not monetary (section 2). A protocol that pays a member a lasting share of the yield earned by the people they persuade to save, out of that yield and nothing else, aligns the social lever with the financial one.

2. Saving as a network

Field experiments give a consistent result: people save more when someone they know is watching or involved, and the effect is larger than the effect of interest rates.

Study	Setting	Finding
Kast, Meier and Pomeranz (2012)	2,687 microentrepreneurs, Chile, randomised	Self-help peer groups multiplied the number of deposits by 3.5 and nearly doubled average balances; a higher interest rate on its own had a limited effect
Breza and Chandrasekhar (2019)	Villages in India, randomised	Sharing progress toward a savings goal with a fellow villager raised savings by about 35%; the closer and more central the monitor, the larger the effect
Beshears et al. (2015)	401(k) plan, United States	Anonymous peer statistics did not help and sometimes backfired: what works is a relationship, not a benchmark
Global Findex 2025	141 economies, survey	Mobile money accounts nearly doubled formal saving in developing economies

Keepr is built on these findings. The sponsor is a real person the member knows, not a statistic; the sponsor has an ongoing stake in the member continuing to save; the incentive is paid from real yield, so it does not distort the underlying product; and the product lives inside an app the member already carries. The result is a network in which every member has a reason to bring in, and keep, savers around them.

3. Yield source

Keepr does not set a rate; it passes through the yield of on-chain lending markets for WLD. On World Chain these markets are run by Morpho, whose vaults are [permissionless and open to direct integration](#) by wallets and financial products. World's own Earn feature, which [replaced the Worldcoin Vault in September 2026](#), uses the same protocol: it [deposits assets into lending protocols selected by Morpho](#) and shows a variable APY before each deposit. Keepr supplies members' WLD to the Morpho WLD vault directly.

Keepr's design therefore takes the yield as an exogenous variable, written y . Three properties of y govern everything downstream.

1. **y is variable and accrues continuously.** It moves with lending demand and with promotional campaigns. [Morpho vault yield](#) is the native lending rate plus any campaign rewards, minus vault fees; on World Chain [priority rewards for World ID verified humans apply to the first 1,000 WLD](#) per depositor. Yield accrues block by block, and so does everything Keepr distributes.
2. **Withdrawals depend on liquidity.** Funds lent out are returned as loans are repaid or as new lenders arrive, so a withdrawal may not be instant.
3. **y carries protocol risk.** Smart contract and market risk apply to any lending protocol, and Keepr adds no guarantee on top.

Everything Keepr distributes is a fraction of y . If y is zero over a period, nothing is distributed and no one is paid, Keepr included.

4. The commission system at a glance

The whole mechanism fits in one picture. Yield on a deposit is split 75 / 25 the moment it accrues. The 25 is a budget, spent first on the commissions owed to the member's sponsors, then pooled. Sections 5 to 8 define each box.

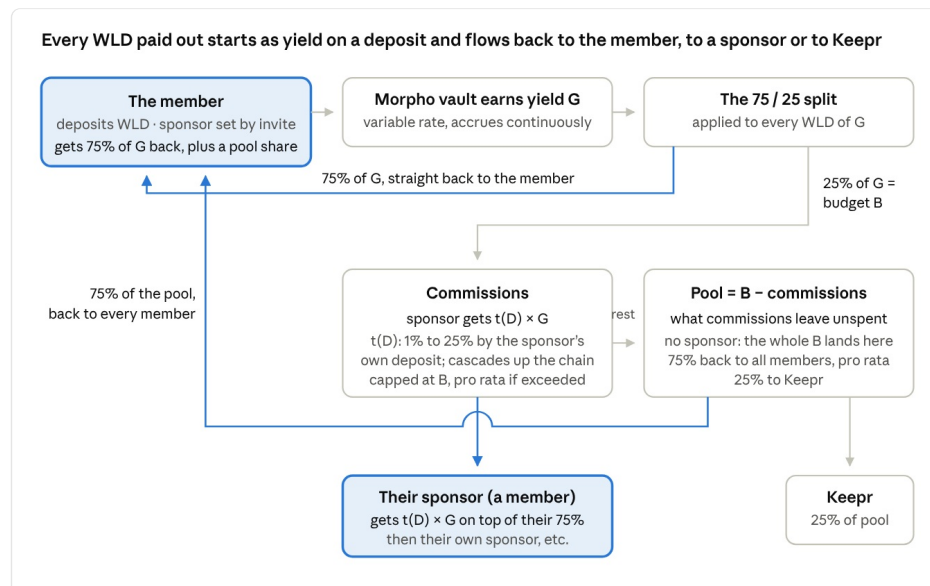


Figure 1. the commission system · one deposit, followed from yield to every recipient

Three properties are visible in the drawing. Nothing flows from one member's principal to another: every arrow starts at G . Whenever the member receives something, the arrow comes straight back to them: their 75% of G returns to them at the split, before the budget exists, and their share of the pool returns to them without passing through anyone else. And Keepr sits at the very end: it is paid only from what the network did not claim.

5. Distribution rule

Let G be the gross yield accrued on a member's deposit. Keepr splits it in a fixed order, continuously, as it accrues.

$$G = 0.75 G + 0.25 G$$

The member receives $0.75 G$ unconditionally. The $0.25 G$ is the distribution budget B of that account. It is spent in two steps:

1. **Commissions.** Each sponsor in the member's chain receives their tier rate applied to G (section 6), subject to the cap of section 7. Call the total C , with $0 \leq C \leq B$.
2. **Pool.** The remainder, $B - C$, is the commission nobody claimed. It goes to the redistribution pool (section 8), of which 75% returns to every depositor and 25% stays with Keepr.

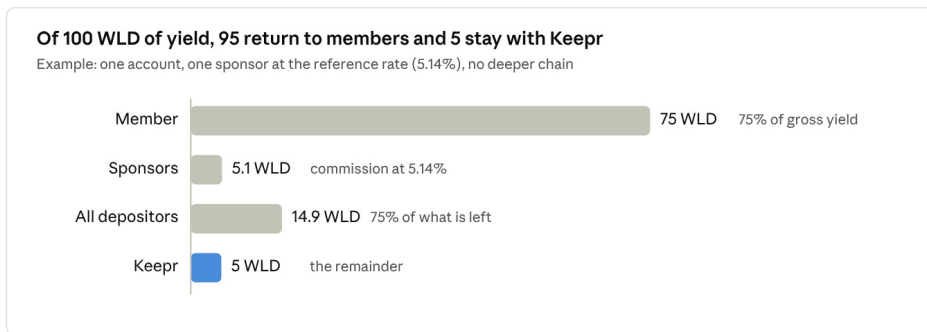


Figure 2. illustrative split of 100 WLD of gross yield · one account, sponsor at the reference rate (5.14%)

A member with no sponsor is the simplest case: $C = 0$, the whole budget goes to the pool, and the split is $75 / 18.75 / 6.25$ with Keepr as the last beneficiary. With a full chain at the top of the curve, $C = B$ and Keepr receives nothing on that account. Every WLD distributed traces back to G , so the sum of all payments never exceeds the yield earned.

6. Tiers

A sponsor's commission rate t depends on one variable only: the sponsor's own deposit D , in WLD. It does not depend on the number of people they sponsored or on the size of their network. This is the central design choice. A rate tied to network volume rewards recruiting; a rate tied to one's own savings rewards saving, and makes the incentive to bring others in an incentive to save more oneself.

$$t(D) = 1\% \times 25^{(\log_{10}(D) / 6)}, \text{ for } 1 \leq D \leq 1,000,000$$

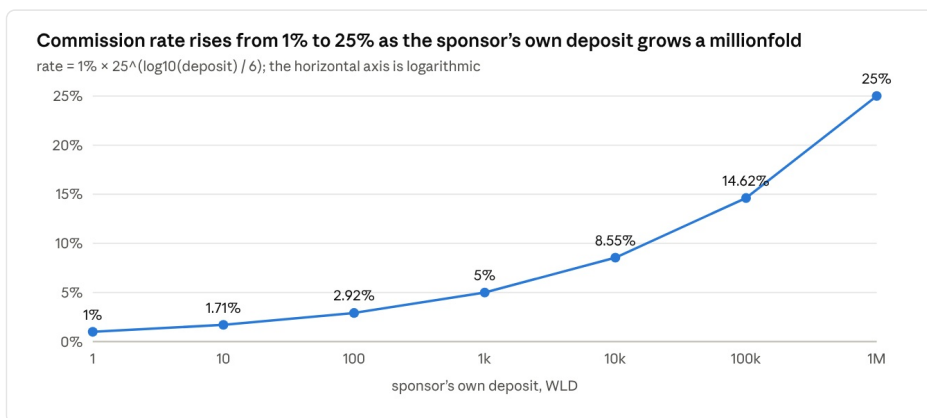


Figure 3. tier curve · 7 points computed from the formula; intermediate values indicative

The curve is exponential in the logarithm of the deposit: each tenfold increase in savings multiplies the rate by about 1.71. It is continuous, so there are no cliffs to game, and it is capped at 25%, which equals the whole distribution budget of section 5. Below 1 WLD the rate is 1%; above 1,000,000 WLD it stays at 25%.

The reference deposit of this paper, \$620, is about 1,130 WLD at a WLD price of \$0.55 and the formula gives $t(1,130) = 1\% \times 25^{\log_{10}(1,130) / 6} \approx 5.14\%$, a little above the 5% of the 1,000 WLD tier. The commission is applied to the gross yield G of the sponsored member, not to their net 75%. A sponsor at this rate whose member earns 100 WLD of gross yield receives 5.14 WLD, and the member still receives 75 WLD. The sponsored member pays nothing: the commission comes out of the budget B .

7. Cascade and cap

Referral chains have no depth limit. A sponsor earns on the income of the members they sponsored, and that income includes the commissions those members earned from their own sponsored members. Commissions therefore cascade upward through the chain.

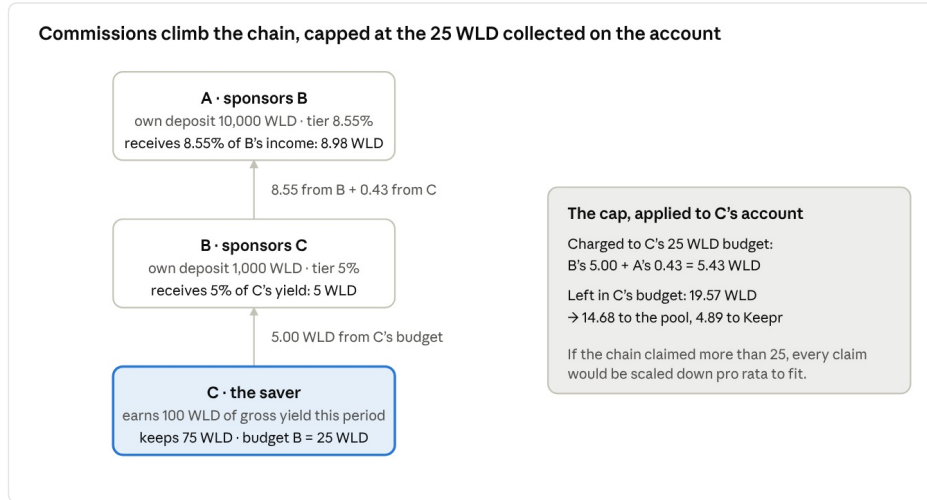


Figure 4. referral chain $A \rightarrow B \rightarrow C$ · illustrative amounts on 100 WLD of yield

Formally, let member i sponsor member j , and let I_j be j 's income (gross yield plus commissions received). Then i receives $t(D_i) \times I_j$. Each component of that payment is charged to the budget of the account whose yield ultimately produced it.

$$\sum_{\text{over every sponsor } k \text{ in the chain above } c} \text{charge}_k(c) \leq B_c = 0.25 G_c$$

The cap is enforced per account: if the claims on account c 's budget exceed B_c , every claim on it is reduced in proportion. This is what makes the network self-funding. No matter how deep or how rich the chain above a saver, the total paid out on their yield is bounded by the 25% collected on it, and nothing is drawn from principal, from other accounts, or from Keepr's reserves.

Two consequences follow. A member deep in a chain can earn more than their sponsor if they save more, because the tier rate is theirs alone. And since A 's second-hand claim on C is scaled by B 's rate, cascaded amounts fall off quickly: 0.43 WLD in the example against 5 WLD for the direct sponsor.

8. Redistribution pool

Most members will have small deposits and sit low on the curve, and many will have no sponsor at all, so much of the distribution budget is never claimed by commissions. Rather than keep it, Keepr pools every unclaimed budget and returns three quarters of it to all depositors, continuously, in proportion to their balance.

$$P = \sum_c (B_c - C_c) \quad \text{share}_i = 0.75 P \times (D_i \cdot \tau_i) / \sum_j (D_j \cdot \tau_j) \quad \text{Keepr} = 0.25 P$$

where D_i is member i 's balance and τ_i the fraction of the period it was deposited. The pool is a loyalty return: a member who never sponsors anyone still receives more than 75% of their yield. If commissions absorb 2.6% of gross yield across the platform, the pool returns 16.8% and the average member ends up with about 92% of what their deposit earned; at 5.1% of yield, the pool returns 14.9% and the average member about 90%.

The pool also answers the objection that a referral scheme only pays recruiters. Here the money that recruiters do

not claim is not Keepr's; three quarters of it belong to the savers.

9. Platform economics

Keepr's revenue on any account is one quarter of what remains of its budget after commissions.

$$R_c = 0.25 (B_c - C_c) = 0.25 (0.25 G_c - C_c)$$

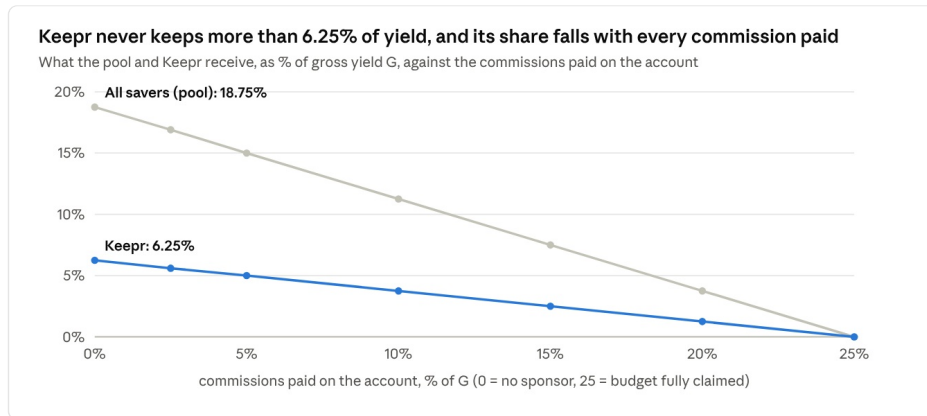


Figure 5. computed from the rule of section 5 · shares of G at seven levels of commission load

It is therefore at most 6.25% of gross yield, on an account with no sponsor, and falls linearly to zero when the chain above an account claims the whole budget. Both lines fall together: every WLD of commission is taken three quarters from the savers' pool and one quarter from Keepr.

The model rests on a distribution, not on a rate: a platform whose members are mostly small savers, many without a sponsor, earns close to 6% of yield; one whose members are mostly heavily sponsored whales earns close to nothing. This is by design, and it is the assumption to monitor. The intended answer to a heavy network is not to lower the curve but to grow the base of ordinary savers, which is what the incentive is for. Costs are those of a Mini App: infrastructure, gas, audits and legal.

10. Multiple accounts

A member could open several accounts and sponsor themselves. Keepr does not treat this as a threat, for three reasons.

1. **Every account deposits real funds.** Splitting a deposit across accounts does not create yield; it only changes who receives the budget on it, and the cap of section 7 bounds that budget at 25% regardless of how the chain is arranged.
2. **Splitting lowers the tier.** The rate depends on each account's own deposit, so a saver who spreads 10,000 WLD across ten accounts sponsors them at the 2.9% tier instead of 8.55%. The curve penalises fragmentation.
3. **The top account always feeds the pool.** The highest account in any self-sponsored chain has no sponsor, so its whole budget goes to the pool, where Keepr and every other saver take their share.

The residual exposure is a very large saver who structures their holdings to claim their own budget at the top of the curve. This reduces the pool on those accounts, not the 75% of other members, and it is bounded by the same cap. World ID, which Keepr uses to sign in, can be used later to limit accounts per human if the exposure proves material.

11. Implementation

Keepr is a Mini App running inside World App, with a distribution engine that computes the split and contracts on World Chain that hold the funds.

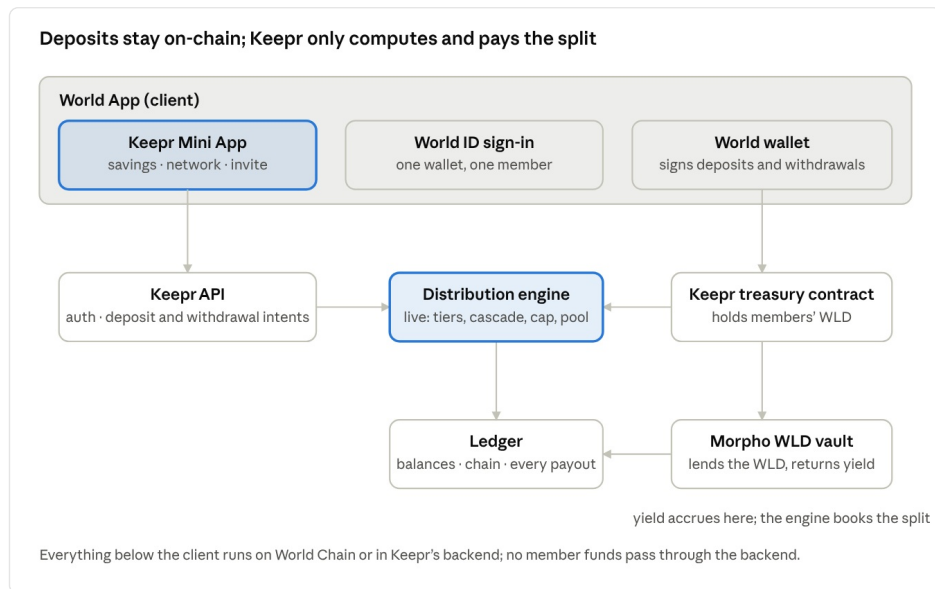


Figure 6. target architecture · client, engine, World Chain

Sign-in. A member authenticates with their World App wallet and, where available, their World ID. One wallet is one member; the sponsor is fixed at first deposit by the invitation link used and never changes.

Deposits and withdrawals. A deposit is a transfer of WLD from the member's wallet to Keepr's treasury contract, which supplies it to the Morpho WLD vault. A withdrawal is the reverse; its timing follows the vault's liquidity.

Distribution. Yield accrues on the vault position continuously, and so do all member balances, commissions and pool shares: as with any lending platform, a member sees their rewards grow in real time, and sponsors see their commissions grow with them. The engine attributes yield to accounts in proportion to their time-weighted balance and applies sections 5 to 8 in order: member share, commissions with cascade and cap, pool. Every amount is written to a ledger with the account and yield it traces back to, so any member can reconstruct their own statement.

Costs on chain. Balances are kept off-chain and settled on-chain in batches to keep gas negligible; World Chain's gas policy for verified humans keeps small balances from being eroded by fees.

A member's life cycle. The journey has five steps, and each one leaves a trace in the ledger.

1. **Invitation.** An existing member shares their link. The link identifies the sponsor, and nothing else.
2. **First deposit.** The wallet becomes a member, its sponsor is fixed for good, and its time-weighted balance starts to run.
3. **Accrual.** At every instant, the yield the vault produces is split between accounts under sections 5 to 8. The member sees their balance, commissions and pool share grow.
4. **Adjustments.** More deposits, partial withdrawals, new referrals: the rules below say what each one changes.
5. **Withdrawal.** The member takes back their principal and earnings. Their sponsorship link stays attached to the account.

Yield accounting. Over a given period, let Y be the total yield produced by the vault position, $b_i(t)$ the balance of account i and w_i its time-weighted balance. The gross yield attributed to account i is

$$G_i = Y \times w_i / \sum_j w_j \text{ with } w_i = \int b_i(t) dt$$

Sections 5 to 8 then apply to each G_i . A conservation rule, checkable at every settlement, guarantees that nothing is created or lost:

$$\sum \text{member shares} + \sum \text{commissions} + \sum \text{pool shares} + \text{Keepr's share} = Y$$

Amounts are rounded down to the smallest unit of WLD; the rounding remainder, always below one unit per account, is paid into the next settlement's pool, so conservation holds to the unit.

Execution rules. Edge cases are settled in advance, so the engine never has to improvise.

Situation	Rule
Member with no sponsor	Their whole budget B goes to the pool (section 8)
Sponsor who deposits more or withdraws	Their tier $t(D)$ follows their current deposit; their commissions on referrals follow the new tier, their own 75% is unchanged
Sponsor with no deposit	No commission, since it depends on their own deposit; the corresponding amount goes to the pool
Referral who withdraws	Their yield falls, and their sponsors' commissions fall in the same proportion
Referral who withdraws everything	They stay in the tree, their sponsor stays fixed; commissions resume if they deposit again
Commissions exceeding B for an account	Pro rata reduction, cap of section 7
Sponsorship chain	Always acyclic: a sponsor is necessarily a member already registered at the referral's first deposit
Zero or negative yield	Nothing to distribute; nothing is taken from a member's principal or from a newcomer
Several accounts held by one person	Not fought (section 10); the rules apply account by account

Protocol parameters. Everything the engine applies comes down to a few constants, all described above:

Parameter	Value	Section
Member share	75% of G, unconditional	5
Distribution budget B	25% of G	5
Commission $t(D)$	$1\% \times 25^{\log_{10}(D) / 6}$, from 1% (1 WLD) to 25% (1,000,000 WLD)	6
Cap	an account's commissions $\leq$ its B, pro rata if exceeded	7
Pool	B – commissions; 75% to depositors, 25% to Keepr	8
Sponsor	fixed at first deposit, never changed	2

Transparency and audit. Every ledger line carries the account, the amount, the rule applied and the yield it came from. Three checks follow. A member can reconstruct their statement end to end. The value of the vault position must equal the sum of deposits and credited earnings (members, sponsors, pool, Keepr), to rounding; any gap is an incident. And aggregate totals, including Keepr's share, are published, so nobody has to take Keepr's word for it.

Custody and security. Members' principal stays in the treasury contract and the Morpho vault; the distribution engine cannot move it. The contract allows only two exits: withdrawal to the wallet of the member who deposited, and settlement of earnings to the accounts that earned them. In an incident, the target is to pause new deposits while keeping withdrawals open. An independent review of the contract and the engine precedes any launch.

12. Calculations

We ask when a member does better inside Keepr than by lending the same WLD directly, which would return 100% of the yield. Take the reference member of this paper: a deposit of \$620, about 1,130 WLD, whose commission rate is $t(1,130) \approx 5.14\%$ (section 6). Let this member sponsor n members whose deposits and yields equal their own, with no chain beneath them. The member's total receipts, as a fraction of the yield on their own deposit, are

$$S(n) = 0.75 + p + t \cdot n$$

where p is the pool share the member receives. Keepr beats saving alone when $S(n) \geq 1$, that is when

$$n \geq (0.25 - p) / t$$

The pool share p depends on how much of the platform’s budget is claimed by commissions, which no one controls. We use two scenarios. If half of members have a sponsor at the reference tier, commissions absorb about 2.6% of gross yield and the pool returns 16.8%. If every member has such a sponsor, commissions absorb 5.1% and the pool returns 14.9%.

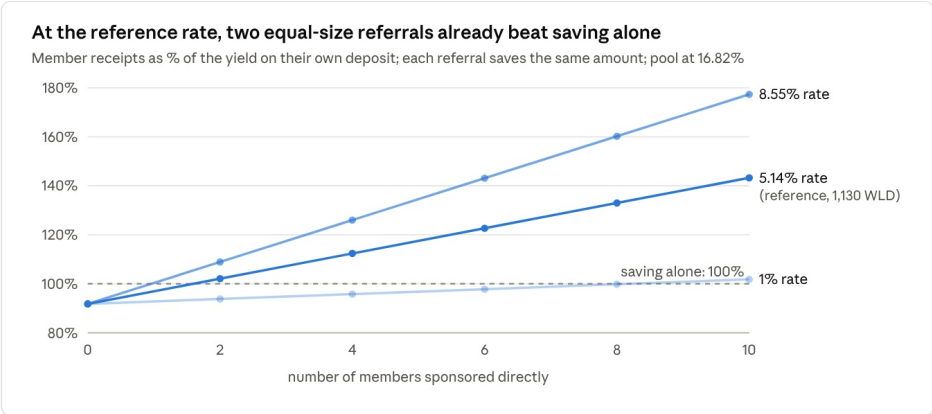


Figure 7. computed from sections 5–8 · reference rate $t(1,130)$ derived from the formula, referrals of equal deposit, no deeper chain, pool at 16.82% of G

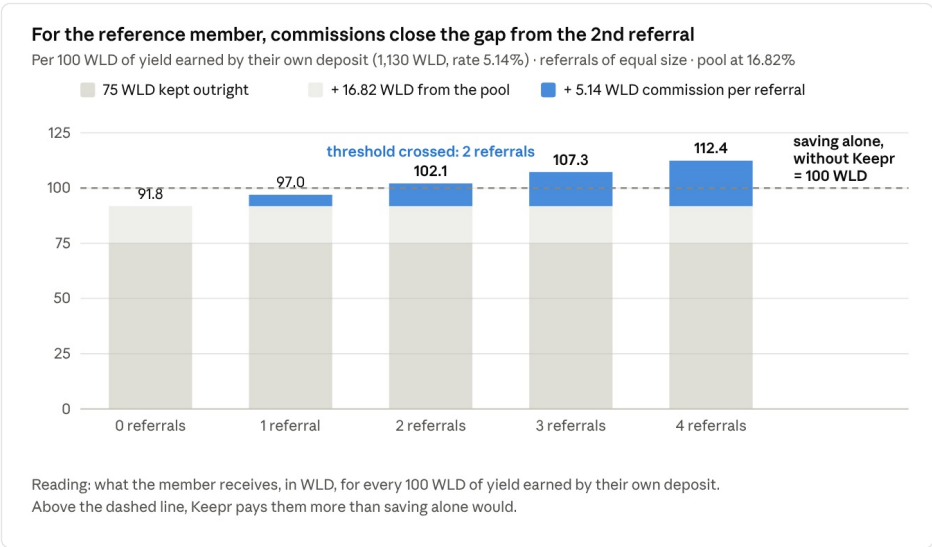


Figure 8. reference member’s receipts $(1,130 \text{ WLD}, t \approx 5.14\%) \cdot 0$ to 4 referrals of equal size, pool at 16.82% of G ; threshold $n \geq (0.25 - p) / t$

The break-even is low because commissions are paid on gross yield and the pool returns most of the unclaimed budget. The reference member with no referrals gives up 8 to 10% of their yield; with two referrals of their own size they already earn more than the yield on their own deposit, funded entirely by the budgets on their referrals’ accounts. The pool matters most at the bottom of the curve: for a 100 WLD saver it cuts the break-even from 9 referrals to 3.

The assumption that referrals save as much as the sponsor is the generous one. If they save less, the same number of referrals contributes proportionally less, and break-even moves out. If they save more, it moves in. In all cases the member’s own 75% is untouched: Keepr never makes a member worse off than 75% of their yield plus their share of the pool.

13. Roadmap

Keepr’s ambition is to become the reference for personal finance in its network, built in stages on one rule.

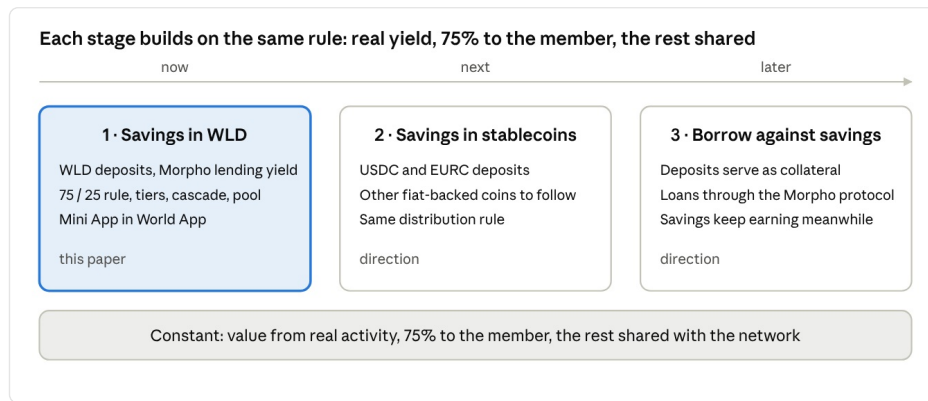


Figure 9. roadmap · three stages; stages 2 and 3 are directions, not commitments

Savings in WLD is the product described in this paper. **Savings in stablecoins** applies the same distribution rule to USDC and EURC deposits, with other fiat-backed stablecoins to follow, so that members can save in the currency they earn and spend in; the Morpho markets for USDC already exist on World Chain. **Borrowing against savings** lets a member use their deposit as collateral for a loan through the Morpho protocol, without withdrawing it: the savings keep earning and the network keeps being paid while the loan is outstanding. Stages 2 and 3 are directions, not commitments, and each will be specified in its own paper before it is built.

14. Risks and conclusion

Keepr guarantees no return. Every payment described here is a fraction of a yield Keepr does not control, and the main risks follow from that.

Risk	Nature	What Keepr does about it
Rate	The lending rate is variable and can fall to zero; promotional campaigns end; World replaced its Vault programme in September 2026 and the ecosystem will change again	Yield is passed through, never promised; the current rate is shown before each deposit
Price	Deposits and rewards are in WLD; a fall in the WLD price lowers their value in fiat, and moves the tier a given fiat amount lands in	Stated plainly; stage 2 adds stablecoins
Protocol and liquidity	Smart contract failure or a liquidity shortage in the lending market can delay or reduce withdrawals	Audited protocol; withdrawal timing disclosed; no leverage on savings
Regulatory	Yield products and multi-level referral schemes are regulated differently by country; availability may be restricted, as Earn already is	Availability by region; legal review before each stage of the roadmap
Concentration	A network dominated by heavily sponsored large savers drives the pool and Keepr's share toward zero	Monitored; the answer is a broader base of ordinary savers, not a lower curve
Operational	A bug in the distribution engine misallocates yield	Every amount traceable to the yield it came from; independent review before launch

The design reduces to one idea: the yield a deposit earns is the only money in the system, and the people who caused that deposit to exist share in it for as long as it exists. The member keeps three quarters. The remaining quarter pays sponsors by their own savings, and what sponsors do not claim is pooled, three quarters to all savers and one quarter to Keepr. No token is minted, no newcomer funds an earlier member, and no chain can claim more than the account beneath it produced. If field evidence on social savings incentives holds outside the laboratory, a protocol built this way should make its members save more, and bring the people around them to do the same.

This paper describes a product under development. It is not financial, legal or tax advice, and all figures are illustrative.

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