Predik

PREDIK

Lightpaper

Self-bootstrapping prediction markets for Latin America, on Monad, in USDC

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The future has a price

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About this paper

This paper explains how Predik works: how a market opens, how prices move, who decides results, where the money sits and what Predik keeps. It replaces the January 2026 lightpaper, which described an earlier design of Predik on another network.

Every mechanic here is the one in Predik's contracts on Monad. Every number was computed with an exact copy of the contracts' own math, rounding included, unless the text calls it approximate. Amounts are in USDC, a digital dollar issued by Circle: "$1" means 1 USDC.

This is a description, not the Terms of Service, and nothing in it is financial advice. Prediction markets involve risk, and Section 12 lists the ones we know.

1 What Predik is

Predik is a prediction market for Latin America. You buy shares in an answer to a question about the future. If that answer turns out right, each share pays $1. If it turns out wrong, it pays nothing.

A share's price is always between $0 and $1, and it reads as a probability. If "Yes" costs $0.65 a share, the market gives "Yes" a 65% chance. The prices of all the answers add up to 100%.

A market is a question with 2 to 6 answers, a closing time and written rules that name the source of the result. For example: "Will Boca win the next Superclásico?", with "Yes" and "No", resolved by the organizer's official result. The rules are stored in the contract with the market, before anyone puts money in.

Self-bootstrapping. Predik puts no money into a market. A new market starts as a pre-market: people commit USDC to the answer they think will win. That money is the market's starting pool. The market opens for trading only when it reaches two goals, one for money and one for people. If it does not reach them by its deadline, everyone gets back exactly what they committed.

On Monad, in USDC. Every commit, trade and payout is a transaction on the Monad blockchain, priced and recorded by contracts, not by a server. MarketFactory runs every market's rules and holds no money; PredikVault holds the money. Neither can be upgraded.

Your wallet. Your USDC stays in your own wallet until you commit or buy, and what you sell or collect goes straight back to it. There is no Predik account to deposit into.

One formula for every market. The same math applies to every market, balanced or lopsided, whoever wins. This paper describes what that math does, including the cases where it is unkind to the people who are right.

IN SIMPLE TERMS.

You buy shares in what you think will happen, and each winning share pays $1. Markets are funded by the people who want them, and they open only when enough people and money back them.

2 A market's life in one page

Stage	What happens	Your money
Creation and approval	A market is created with a $1 bond. Predik approves it or rejects it. For now the Predik team creates every market.	Nothing yet.
Pre-market	People commit USDC to answers. Each commit earns *points* on that answer's bonding curve (Section 3).	Locked in the vault. You cannot sell or withdraw it.
Go-live	The commit that meets both goals opens the market in the same transaction. The whole pool becomes the opening book (Section 4), and each committer's points become shares of their answer.	Now shares, which you can keep or sell.
Live trading	Anyone can buy and sell until the closing time. The price moves with every trade (Section 5).	Buys pay a 1% fee. Sells are free.
Result	From the closing time, Predik proposes the result and a dispute window opens. When it closes, anyone can finalize the result (Section 7).	Nobody is paid while the window is open.
Collection	Each winning share pays exactly $1. What is left in the pool goes to Predik (Section 6).	You collect it yourself. Collecting is never paused.

A market can be voided in two ways:

1. **Before go-live.** The pre-market reaches its deadline without meeting both goals. Everyone gets back exactly what they committed.
2. **After go-live.** Predik reports the event cancelled, or no result is proposed or finalized within 14 days. Each share is then refunded at its last price, and committers usually get back less than they put in (Section 8).

The running example in this paper is ten friends on a market with the usual goals ($100 and 10 people). Six commit $10 each to "Yes" and four commit $10 each to "No". The tenth commit meets both goals and the market opens at 60% "Yes", 40% "No" (Section 4).

3 The pre-market and its bonding curve

Goals, caps and the deadline

Every market sets two goals when it is created:

- **A money goal:** at least $25, usually $100.
- **A people goal:** at least 4 different wallets, usually 10.

A commit is at least $1. One wallet can commit at most 33% of the money goal in total, across all answers: $33 on a $100 goal. The cap is per wallet, so it cannot stop one person from using several wallets.

The market goes live the moment both goals are met, inside the transaction of the commit that meets them. The pool can end above the money goal: if the money arrives before the people, commits continue until the people goal is met.

Every pre-market has a deadline. The creator chooses it. If none is chosen, it is 7 days after approval. It is never later than the market's closing time. Committed money is locked until go-live or a void: a pre-market has no sell.

The price of a point

Each answer has its own bonding curve. Its price depends only on how much money that answer has received so far, C_i:

```
price_i = 1/N + K · C_i
K = (0.70 − 1/N) / money goal
```

`N` is the number of answers. On a two-answer market with a $100 goal, `1/N` is $0.50 and `K` is $0.002 per dollar committed:

Money already on the answer	$0	$25	$50	$100	$200	$249.50
Price of a point	$0.50	$0.55	$0.60	$0.70	$0.90	$0.999

An answer's price reaches $0.70 when its money equals the goal. A commit that would push it above $0.999 is refused, so on that market one answer can take at most $249.50.

These prices are not the market's odds. Each answer's curve ignores the others, so the prices do not add up to 100%. They do one thing only: they decide how many points a commit earns.

Points

A commit buys points at the current price of its answer, all along the curve:

```
points = (1/K) · ln( price_i(after) / price_i(before) )
```

On the $100 two-answer market, the first $10 on an answer earns 19.61 points. A $10 commit after $50 is already there earns 16.39 points, and after $90 it earns 14.49 points. Splitting a commit changes nothing: ten $1 commits earn exactly the 19.61 points of one $10 commit. (The contract calls points *pre-market shares*.)

Points are never paid out. **At go-live, each answer's opening shares are split among that answer's committers in proportion to their points.** Your opening shares are:

```
your shares = (your points / all points on your answer) × opening shares of your answer
```

So points matter only against other committers of the same answer. Within an answer, an earlier dollar earns more points, so a bigger slice of that answer's shares. That is the whole advantage of committing early, and it is not a discount (Section 4).

How many shares you get is not known until go-live. It depends on what is committed after you, to your answer (more points share the same answer) and to the others (which changes the split of the pool). Before you commit, the app shows what you would collect if your answer wins with the split as it is at that moment.

Each commit carries a minimum number of points and a deadline. If other commits land first and your commit would earn fewer points than your minimum, it fails and your money does not move.

If the market never goes live

From the deadline, anyone can void a pre-market that did not reach both goals; Predik does it automatically. Each committer then collects back exactly what they committed. The creator's $1 bond is not refunded.

IN SIMPLE TERMS.

You commit to an answer and earn points; earlier dollars earn more. Points only decide your slice of your answer's shares when the market opens. If the market never opens, you get everything back.

4 Go-live: the opening book

The formula

At go-live the contract turns the whole pool into an opening book: the number of shares each answer starts with. With T the total committed, C_i the money on answer i, b the market's depth and E the number of answers nobody backed:

$$q_{0,i} = T' - b \cdot \ln(T / C_i) \quad \text{for each answer that received money}$$
$$q_{0,i} = 0 \quad \text{for an answer nobody backed}$$
$$T' = b \cdot \ln(e^{T/b} - E) \quad \text{equal to T when every answer received money}$$

- **The market opens at the crowd's odds.** Each answer that received money opens at its share of the money, $\pi_i = C_i / T$. If 60% of the money is on "Yes", "Yes" opens at 60%.
- **The whole pool is spent.** The opening book costs exactly the pool, less a tiny rounding guard ($0.000008 on the friends market). Predik adds nothing and keeps nothing at this step.
- **Winners collect the pool minus a depth charge.** If answer i wins with no trading, its committers together collect $q_{0,i}$ dollars: when every answer received money, the pool T minus $b \cdot \ln(T / C_i)$. The less money an answer received, the bigger its charge.
- **An answer nobody backed** opens at a small price, $e^{-T/b}$, and nobody holds a share of it. The other answers open in proportion to their money, slightly below their share. On a $1,000 three-answer market split $800 / $200 / $0: 76.0%, 19.0% and 5.0%.

The depth

The depth b decides how much prices move when people trade. It is set once at go-live and never changes:

$$b = \min(T/N,\ b_{max},\ b_{floor})$$

- **T/N**, the pool over the number of answers, is the depth of almost every market: $50 on a $100 two-answer market.
- **b_{max}** is the largest depth (to a small rounding step) at which a book of 99% of each answer's money costs at most the pool. It binds only on extremely lopsided books: $29.42 on the unanimous $100 two-answer market.
- **b_{floor}**, the floor, lowers it just enough that every backed answer opens with at least $T / (100 \cdot N)$ shares (less a few millionths), 1% of an equal share: 0.50 shares on a $100 two-answer market, where it applies above about 86% on one answer.

The floor is the formula's only special case. There is no other protection for lopsided markets.

At go-live the contract checks that the opening book costs no more than the pool, and refuses to open the market otherwise. No role can skip that check, and no role can rewrite the book or the depth afterwards: only trades move it.

Worked example: ten friends, 60/40

T = $100, two answers, so b = $50.

	"Yes" (6 × $10)	"No" (4 × $10)
Money committed	$60	$40
Opens at	60%	40%
Depth charge $b \cdot \ln(T / C_i)$	$25.54	$45.81
Opening shares $q_{0,i}$	74.46	54.19
What the committers paid per share	$0.806	$0.738
If it wins, the side collects	$74.46 (+24.1%)	$54.19 (+35.5%)
First committer / last committer collects	$13.58 / $11.35	$14.32 / $12.81
Predik keeps, with no trading	$25.54	$45.81

For "Yes": $q_0 = 100 - 50 \cdot \ln(100/60) = 100 - 25.54 = 74.46$ shares. The first "Yes" committer earned 19.61 of the 107.56 "Yes" points, so they get 19.61 / 107.56 × 74.46 = 13.58 shares. Each pays $1 if "Yes" wins.

Balanced and lopsided markets

The same formula gives very different results as the split moves away from even. Every committer below put in $10, so a market with 20 committers holds $200:

Split (committers)	Depth b	Favourite's side, if right	Smaller side, if right
50/50 (10)	$50	+30.7%	+30.7%
60/40 (10)	$50	+24.1%	+35.5%
75/25 (20)	$100	+14.2%	+22.7%
80/20 (10)	$50	+11.1%	−2.4%
85/15 (20)	$100	+8.1%	−65.7%
90/10 (10)	$43.21	+6.1%	−95.0%
100/0 (10)	$29.42	−1.0%	nobody holds it

On a lopsided market, the small side pays most of the market's depth, and it can lose money even when it is right. On the 90/10 market the floor applies: b drops to $43.21, the $10 side opens with 0.50 shares, and if it wins its committer collects $0.50. The 90% side collects $95.45 if it wins. On the unanimous market, everyone backed "Yes": if "Yes" wins, the side collects $99.00 (−1%); if "No" wins, nobody holds it and the whole pool goes to Predik (Section 6).

With more answers, the depth T/N is a smaller part of the pool, so a side pays a smaller depth charge than it would with the same share of the money on a two-answer market. On a $1,000 three-answer market where 100 people commit $10 each, split 50/30/20, the sides collect +53.8%, +99.6% and +131.8% if right.

Committing versus buying right after go-live

When every answer received money, the opening shares are worth, at the opening prices:

$$\sum \pi_i \cdot q_{0,i} = T - b \cdot H(\pi) \qquad \text{where } H(\pi) = -\sum \pi_i \cdot \ln(\pi_i)$$

The difference, $b \cdot H(\pi)$, pays for the depth that lets the live market trade smoothly. On the friends market the opening shares are worth 74.46 × $0.60 + 54.19 × $0.40 = $66.35; the other $33.65 pays for the depth.

So, as a group, **committers usually pay more per share than someone who buys right after go-live.** The "Yes" committers paid $0.806 a share. A $10 buy of "Yes" right after go-live gets 15.56 shares, $0.643 each with the fee included, and pays $15.56 if "Yes" wins. On "No": $0.738 a share for the committers, $0.458 for the buyer (21.83 shares for $10).

The earliest committers of an answer pay least, and on some markets they beat that buyer. On the 90/10 market, the first committer to the favourite got 12.17 shares for $10 ($0.82 each); a $10 buy after go-live gets 10.87 ($0.92 each). One known edge goes further: a wallet that commits the first $1 on every answer of a market that later opens balanced and above its goal is paid more than its stake whichever answer wins ($6 staked on a six-answer, $330 market pays about $7.18). The gain comes from later committers on the winning answer, and it is not risk-free: if the market ends lopsided, the small answers' first dollars pay little.

Committing still decides which approved markets open, has no fee and gives an earlier dollar a bigger slice of its answer. It is not a discount.

IN SIMPLE TERMS.

At go-live the whole pool buys the opening book, and the market opens at the split of the money. If your answer wins, your side collects the pool minus a depth charge that is larger the less money your answer had. On a lopsided market, the small side can lose even when it is right.

5 Live trading

Prices

Once a market is live, its prices come from an automated market maker in the contract, the CS-LMSR: a logarithmic market scoring rule whose depth b was set from the pool at go-live. With q_i the shares of answer i outstanding:

$$C(q) = b \cdot \ln\left(\sum_j e^{q_j / b}\right) \quad \text{the cost function}$$

$$p_i = e^{q_i / b} / \sum_j e^{q_j / b} \quad \text{the price of answer i}$$

The prices always add up to 100%. Buying an answer raises its price and lowers the others; selling does the opposite. Nobody sets a price by hand.

Buying

You pick an answer and enter how much to spend, at least $1. The fee is 1% of that amount, already included: on a $10 buy, $0.10 is the fee and $9.90 buys shares. The pool receives exactly $C(q') - C(q)$, the change in the cost function. The fee never enters the pool: 70% goes to Predik's treasury and 30% to the market's creator.

On the friends market, a $10 buy of "Yes" at 60% gets 15.56 shares and moves "Yes" to 67.2%. If "Yes" wins, those shares pay $15.56.

Depth and price impact

Your buy raises the price as it fills, so the more you buy at once, the less you get per dollar. The depth decides by how much. An even $100 two-answer market has a depth of $50; an even $1,000 one has $500. Buying "Yes" at 50% (average prices include the 1% fee):

Buy	$100 market: shares	Average price	Price after	$1,000 market: shares	Average price	Price after
$10	18.16	$0.551	59.0%	19.61	$0.510	51.0%
$50	73.88	$0.677	81.4%	94.54	$0.529	54.7%
$100	130.08	$0.769	93.1%	181.60	$0.551	59.0%

Selling

You can sell shares you hold, at any size, while the market is open. Selling has no fee and no minimum. You receive exactly $C(q) - C(q')$ from the pool, so the price drops as you sell. If you buy and then sell the same shares straight away, you get back 99% of what you spent: you lose only the fee.

What you get can be more or less than you paid. A committer who sells right after go-live usually gets back less than they committed: on the friends market, the first "Yes" committer's 13.58 shares sell for $7.70.

Slippage and deadlines

Every buy carries a minimum number of shares and every sell a minimum payout, plus a deadline. If the price moves past your limit before your transaction lands, it fails and your money does not move.

The supply ceiling

No answer can ever have more than $130 \cdot b$ shares outstanding. A buy that would cross that line, or whose cost is above $130 \cdot b$ dollars, fails as a whole; there is no partial fill. On a $100 two-answer market (b = $50), that is 6,500 shares per answer. Sells are never capped. The ceiling keeps the contract's exponential math inside its safe range.

When trading stops

- **At the closing time.** For sports, the closing time is the scheduled final whistle, kickoff plus 105 minutes, so in-play trading is allowed until then.
- **During a halt of one market.** Predik's resolver or guardian halts a market when, for example, its event is postponed. Buys, sells and commits stop on that market only.

- **During a pause.** Predik's guardian can pause buys, sells and commits on every market. While a pause lasts, nobody can sell.

> IN SIMPLE TERMS.
> A formula sets the price and moves it with every trade. You pay 1% when you buy and nothing when you sell. Small markets move a lot per trade; big ones move less.

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6 Settlement and solvency

Each winning share pays exactly $1

When a result is final, each share of the winning answer pays exactly $1, and every other share pays nothing. The people who are right do not split the losing answers' money.

What is left goes to Predik

In the same transaction that finalizes the result, the contract keeps exactly $1 for each winning share and moves the rest of the pool to Predik's treasury. On the friends market with no trading, that is $25.54 if "Yes" wins and $45.81 if "No" wins.

Trading changes both numbers. Say someone buys $10 of "Yes" right after go-live. The pool grows to $109.90 and "Yes" now has 90.01 shares outstanding. If "Yes" wins, the contract pays $90.01 (the buyer's 15.56 shares included) and Predik keeps $19.89. If "No" wins, it pays $54.19 and Predik keeps $55.71.

If nobody holds the winning answer, the whole pool goes to Predik

This happens when the winner is an answer nobody committed to and nobody bought, or one that every holder sold. On the unanimous market, if "No" wins, nobody is paid and the whole $100 goes to the treasury.

Why the pool can always pay

Three facts, each enforced by the contract:

1. **At go-live, the opening book costs no more than the pool:** $C(q_0) \le T$.
2. **Every trade moves the pool by exactly the cost function's change.** A buy adds $C(q') - C(q)$, a sell removes $C(q) - C(q')$, and fees never touch the pool. So after any sequence of trades the pool is exactly $T - C(q_0) + C(q)$.
3. **The cost function is never below the largest supply of any answer:** $b \cdot \ln \sum e^{q_j/b} \ge b \cdot \ln e^{\max q / b} = \max q$.

Together:

$$\text{pool} = T - C(q_0) + C(q) \;\ge\; C(q) \;\ge\; \max_i q_i \;\ge\; q_{\text{win}}$$

The pool always holds at least $1 for every share of whichever answer wins. In the example above, the pool of $109.90 covers the 90.01 "Yes" shares and the 54.19 "No" shares. The same bound covers a void's refunds: shares refunded at their last prices are worth at most $C(q)$.

So there is no bank run: nobody has to sell or collect before others to be paid, in any order. The contract's fixed-point math can round $C(q)$ down by a tiny amount (3 millionths of a dollar when b is $50, more on very deep markets); the opening book leaves that much unspent, and if a pool were ever short by rounding, the winners would share it pro rata. This is a statement about the pool's accounting. Who decides the result, and with what powers, is in Sections 7 and 9.

Collecting

Winnings do not arrive on their own: you collect them from your Portfolio or the market page, and "Collect all" collects several markets in one step. Collecting is never paused, by either contract, and the contract sets no deadline for it. Anyone holding winning shares can also collect directly from the contract.

IN SIMPLE TERMS.

Each winning share pays $1, and Predik keeps what is left. The contract's rules make sure every market's pool can pay all its winners, in any order.

7 Results

Who proposes a result

From the closing time, Predik's resolver proposes the result, using the source the market's rules name, such as the organizer's official result. The resolver is a dedicated wallet, separate from the multisig that holds Predik's other keys (Section 9).

For Standard and Fast markets whose rules say so, an automatic proposer can make the first proposal instead:

- It proposes only when two independent public sources agree. A value too close to a threshold in the rules gives no answer, and a person decides.
- By default it waits until 30 minutes after the closing time.
- It can only make a first proposal. It never reports an event cancelled, never acts on an Instant market and never touches a market that has become voidable.
- It can make at most 50 proposals at once, refilled at 50 per day.
- The resolver can override it and can stop it with one signature. Only Predik's multisig can restart it.

The dispute window

A proposal opens a dispute window. Its length is fixed by the market's type when the market is created:

Market type	Dispute window
Standard	48 hours
Fast	2 hours
Instant	60 seconds (demonstrations on the test network only; Predik does not approve Instant markets on mainnet)

The resolver or the multisig can extend a window once, by up to 48 hours, to review a report. Nobody is paid while a window is open.

Disputes

If you think a proposed result is wrong, email support@predik.io before the window closes, with the market link, the result you think is right and the source that shows it. Disputing costs nothing. There is no vote and no on-chain dispute: the window is a public delay during which Predik can correct the result by proposing again. A correction does not restart the window; it gets only the time that is left.

Finalizing

When the window closes, anyone can finalize the result in the contract; Predik does it automatically. The result is then final and collection opens.

Cancelled events

If the event does not take place or its result cannot be verified, the resolver reports it cancelled after the closing time. That report has the same dispute window, and when it is finalized the market is voided (Section 8). If a postponement is known before the closing time, Predik halts the market so that no trade moves its prices after the news.

The 14-day backstop

If no result is proposed within 14 days after the closing time, or a proposed result is not finalized within 14 days after its window ends, anyone can void the market. Nothing can pause this void. So once a market's closing time has passed, its pool cannot stay locked for good.

> IN SIMPLE TERMS.
> Predik proposes each result from a named public source. You have a window to email a correction, and Predik can fix the result before it closes. If nobody resolves a market within 14 days, anyone can void it.

8 Voids and refunds

A pre-market that never opened: a full refund

Each committer collects back exactly what they committed: their cost basis. Nobody gains or loses anything except the creator's $1 bond.

A live market that is voided: each share at its last price

A live market is voided when the event is reported cancelled or nobody resolves it within 14 days. The contract then freezes the prices at the moment trading stopped (the closing time, or the halt), and refunds every share at that price:

$$\text{refund} = \Sigma_i \ \text{your shares of answer } i \times \text{last price of answer } i$$

What is left in the pool after those refunds goes to Predik's treasury. After go-live, a commitment is just shares: every share of an answer is refunded the same, whoever holds it and whenever it was bought.

Committers usually get back less than they put in, sometimes half or less. With no trading before the void:

Market	Refunded to committers	Predik keeps
50/50 friends, $100	$65.34 (first "Yes" committer $7.03, last $6.08)	$34.66
60/40 friends, $100	"Yes" side $44.68 of $60; "No" side $21.67 of $40	$33.65
90/10, $100	90% side $85.90 of $90; the $10 side $0.05	$14.05

With no trading and money on every answer, the amount refunded to committers is the opening value of their shares, $T - b \cdot H(\pi)$, from Section 4. For buyers, a refund can be more or less than they paid. Trading fees are never refunded, and the creator keeps its share of them.

Refunds do not arrive on their own either: you collect them from the market, like winnings. Refunds are never paused.

> IN SIMPLE TERMS.
> If a market never opens, you get everything back. If a live market is cancelled, each share is refunded at its last price, which for committers usually means getting back less than they put in.

9 Money, custody and control

Your wallet

If you sign in with your email, the app creates your own wallet on Monad through Dynamic, the sign-in service; you can also connect a wallet you already have. Your USDC stays in that wallet until you commit or buy, and it leaves only when you confirm a transaction. Predik cannot move the money in your wallet.

The vault

What you commit or buy sits in PredikVault, in that market's own pool, until you sell or collect. MarketFactory holds no money. The vault serves one MarketFactory for its whole life, fixed once at deployment. Predik's treasury can withdraw only what the vault records as treasury money; it cannot reach a market's pool, a refund reserve or a creator's fees.

Contracts that cannot be upgraded

Neither contract has an upgrade mechanism. Their code is public and verified on the block explorer, and it does not change. A new fee or a new formula would need new contracts; markets already running stay on the contracts they were created on. The contracts have not been audited by an independent third party.

Who holds which keys

Key	Holder	What it does
Admin and guardian	A 2-of-3 Safe multisig, with no timelock: what it approves takes effect at once	Approves or rejects markets, grants and revokes every other role, lifts pauses and halts, pauses trading, halts a market, extends a dispute window, runs emergency mode
Resolver	A dedicated wallet, separate from the Safe	Proposes and corrects results, reports cancelled events, halts a market, extends a dispute window, stops the automatic proposer
Automatic proposer	Its own wallet, once the Safe grants it	Makes first proposals under the limits in Section 7
Treasury	Predik's treasury wallet	Withdraws treasury money

The guardian's powers

- **Pause.** Stop commits, buys and sells on every market, or halt one market. While a pause lasts, nobody can sell. Collecting winnings and refunds is never paused, and results and voids go on.
- **Emergency mode.** Turn on an emergency mode in the vault that stops new money and sells, and for 14 days lets refunds of voided markets be paid from a list the guardian publishes. The vault pays whoever that list names, so a wrong list could misdirect a voided market's refunds.

What Predik can and cannot do

Predik **can**: approve or reject each market; propose each result, correct it during the window, or report the event cancelled, which voids the market; pause or halt trading; run emergency mode; and, through the Safe, give any of its roles to another wallet.

Predik **cannot**: move the money in your wallet; set a price or rewrite a market's book; pause collecting winnings or refunds; withdraw a market's pool through the treasury, which reaches only what the vault records as treasury money; or change the contracts' code.

What that means

The pool's accounting does not depend on anyone: Section 6 holds whatever Predik does. Who gets the pool does. A wrong result pays the wrong side, and a result naming an answer nobody holds sends the whole pool to Predik's treasury. A cancel report followed by a wrong emergency list would send a voided market's refunds to the wrong wallets. Using Predik means trusting its resolver and its Safe.

Network fees

Predik pays the network fee (gas) for wallets created with email login, as a courtesy it can limit. A wallet you connect yourself, such as MetaMask, pays its own fee in MON, Monad's token. Every action a holder needs (sell, collect, refund, void) is a plain contract call that any funded wallet can make.

If Predik's servers go down

The contracts keep working on Monad alone: while a market is open you can sell, and you can collect winnings and refunds and void a market when its time comes. Results need Predik's resolver or its automatic proposer. If they stay silent, the 14-day void is the exit, and it refunds at last prices.

IN SIMPLE TERMS.

Your money is in your wallet until you use it, then in a public contract that nobody can upgrade. Predik's keys decide results and can pause trading, but they cannot pause collecting or touch your wallet.

10 Who can use it

- **Invite-only at launch.** You need an invite code to start.
- **The United States is close-only.** From the US and its territories, you can read the site and exit (sell, collect winnings and refunds, and send USDC out), but you cannot commit or buy.
- **Sanctioned places are blocked** by IP address: Cuba, Iran, North Korea, Syria, and Ukraine's Crimea (with Sevastopol), Donetsk and Luhansk regions, all under US OFAC sanctions.

Predik's app enforces these rules; the contracts do not check who calls them. The contract lets anyone propose a market with a $1 bond, and each opens only after Predik approves it. For now the Predik team creates every market; you can suggest one by tagging Predik on X or in its Telegram community.

11 How Predik earns

Predik earns in three ways:

1. **The 1% fee on buys.** 70% goes to Predik's treasury and 30% to the market's creator, who can collect it once the market ends, resolved or voided. For now the creator is the Predik team. Every $100 of buys pays $0.70 to the treasury and $0.30 to the creator. Sells, commits and collecting pay no fee.
2. **The $1 creator bond.** It goes to the treasury when a market is created, and it is not refunded, even if the market is rejected or never opens.
3. **The leftover pool.** After each winning share is paid $1, the rest of the pool goes to the treasury: all of it if nobody holds the winning answer. After a live void, what is left after the refunds goes there too.

On a market with little trading, the leftover is the larger of these by far. With no trading, the leftover averaged over the answers, each weighted by its share of the money, is $b \cdot H(\pi)$: $34.66 on a $100 50/50 market and $33.65 on the 60/40 friends market. For its 70% of the fee to match that, a market would need about $5,000 of buys.

Trading moves the leftover up or down: what traders win from the market maker comes out of it, and what they lose goes into it. It never goes below zero, because the pool always covers the winners (Section 6). Predik never puts money into a market and never pays winners out of its own funds.

12 Risks and known edges

- **Being right can lose money** on a lopsided market: on a 90/10 market, the right $10 side collects $0.50 (Section 4).
- **Committing is not a discount.** As a group, committers usually pay more per share than people who buy right after go-live, and they do not know their shares until go-live.
- **Committed money is locked** until go-live or the deadline, which can be as late as the event.
- **A live void refunds at last prices,** so committers usually get back less than they put in (Section 8).
- **The price before a foreseeable void.** The last trade before trading stops sets the refund prices. Before a void people can see coming, such as a postponed match, a buyer can push a price up and be refunded at it, at the expense of the treasury and the other side: on a $100 50/50 market, a $60 buy nets +$12.71. Predik's halt freezes prices once it lands, but it cannot undo a trade made before it.
- **Forcing a pre-market live.** If a pre-market's event is known to be cancelled before Predik halts it, a commit can still meet the goals and open it. That turns a full refund into a last-price refund, which can pay early committers more than they put in at the expense of later ones.
- **The first dollar on every answer** can pay in every branch on a market that opens balanced (Section 4).

- **Trust in Predik's keys.** Results come from Predik's resolver or its automatic proposer, and the dispute window is a public delay, not an on-chain dispute: a correction made just before it closes leaves little time to react. The admin Safe acts with no timelock, and in emergency mode voided markets' refunds follow a list Predik publishes.
- **A pause stops selling** for as long as it lasts, and **price impact** is large on small markets.
- **Rounding.** Payouts can differ by a few millionths of a dollar with the order in which positions are first touched; that dust goes to the treasury once everyone has collected.
- **Unaudited contracts.** The code is public and tested, but no independent third party has audited it.
- **Network fees and USDC.** Predik's gas courtesy can be limited or stopped. USDC is issued by Circle, and Predik does not guarantee it is worth exactly $1.

Predik's rule for edges like these is simple: it fixes mechanical, risk-free exploits, and it accepts information and timing edges as part of a free market.

13 Parameters

Parameter	Value
Network and collateral	Monad mainnet (chain id 143), Circle USDC (6 decimals)
Answers per market	2 to 6
Money goal	At least $25; usually $100
People goal	At least 4 wallets; usually 10
Per-wallet cap in the pre-market	33% of the money goal, across all answers
Minimum commit	$1
Pre-market deadline	Set by the creator; 7 days after approval by default; never later than the closing time
Bonding curve	$price_i = 1/N + K \cdot C_i$, $K = (0.70 - 1/N) / \text{money goal}$; refused above $0.999
Opening book	$q_{0,i} = T' - b \cdot \ln(T / C_i)$
Depth	$\min(T/N, b_{max}, b_{floor})$, fixed at go-live
Opening floor	$T / (100 \cdot N)$ shares for every answer that received money, less a few millionths of a share
Buy fee	1% of the amount, included; 70% treasury, 30% creator
Sell fee and commit fee	None
Minimum buy / minimum sell	$1 / none
Supply ceiling	$130 \cdot b$ shares per answer
Creator bond	$1, not refundable
Winning share	Pays exactly $1
Dispute window	48 hours (Standard), 2 hours (Fast), 60 seconds (Instant, test network only)
Window extension	Once, by up to 48 hours
Automatic proposer	Standard and Fast markets; from 30 minutes after the close (default); at most 50 at once, refilled at 50 per day
Void when unresolved	14 days after the close with no proposal, or 14 days after a window with no finalization
Emergency refund window	14 days
Sports closing time	Kickoff plus 105 minutes
Admin keys	2-of-3 Safe, no timelock; separate resolver wallet
Upgradeability	None

Appendix: the math in one page

Pre-market. For an answer with C already committed, on a market with N answers:

$$\text{price}(C) = 1/N + K \cdot C \qquad K = (0.70 - 1/N) \,/\, \text{money goal}, \quad \text{price} \le 0.999$$
$$\text{points}(C) = (1/K) \cdot \ln\left(\text{price}(C) \,/\, (1/N) \right)$$
$$\text{a commit from } C \text{ to } C' \text{ earns } \text{points}(C') - \text{points}(C)$$

Opening book. With $T = \Sigma\, C_i$, $\pi_i = C_i \,/\, T$ and E answers with no money:

$$T' = b \cdot \ln(e^{T/b} - E)$$
$$q_{0,i} = T' - b \cdot \ln(1/\pi_i) \quad \text{(money on i)}; \qquad q_{0,i} = 0 \quad \text{(no money on i)}$$
$$C(q_0) + \text{guard} \le T, \quad \text{guard} = b \,/\, 50{,}000{,}000 + \$0.000002; \quad C(q_0) \le T \text{ is checked at go-live}$$
$$b = \min(T/N,\ b_{max},\ b_{floor})$$
$$\text{every backed answer opens with} \ge T/(100 \cdot N) \text{ shares, less a few millionths}$$
$$\text{your opening shares} = \text{your points} \,/\, \text{answer's points} \times q_{0,i}$$

Live trading.

$$C(q) = b \cdot \ln \Sigma_j\, e^{q_j/b} \qquad p_i = e^{q_i/b} \,/\, \Sigma_j\, e^{q_j/b}$$
$$\text{buy: fee} = 1\% \text{ of amount}; \quad \text{pool} \mathrel{+}= C(q') - C(q) \le 0.99 \times \text{amount}$$
$$\text{sell: pool} \mathrel{-}= C(q) - C(q'); \quad \text{no fee}$$
$$q_i \le 130 \cdot b$$

Settlement and voids.

$$\text{pool} = T - C(q_0) + C(q) \ge C(q) \ge \max_i q_i \ge q_{win}$$
$$\text{winner's payout} = \$1 \times \text{shares}; \qquad \text{treasury} \mathrel{+}= \text{pool} - q_{win} \quad \text{(all of it if } q_{win} = 0)$$
$$\text{live void refund} = \Sigma_i\, \text{shares}_i \times p_i \text{ (frozen)}; \quad \text{treasury} \mathrel{+}= \text{pool} - \Sigma_i\, q_i \times p_i$$
$$\text{no trading:} \quad \Sigma_i\, \pi_i \cdot q_{0,i} = T - b \cdot H(\pi), \quad H(\pi) = -\,\Sigma_i\, \pi_i \cdot \ln \pi_i$$