XRPL • XLS-65 / XLS-66 • SIMULATOR GUIDE

The Lending Protocol Breakdown

Broker, lender, and borrower roles.
Fees, structure, and terms.
XRP vs. RLUSD - and why the difference matters.

> **One idea runs through everything:** a vault pools one asset, a broker manages loans from that pool, and borrowers repay with interest - or default. Who earns, who decides, and who absorbs the loss depends entirely on which seat you sit in.

For players of **The Lending Protocol Game** and anyone learning the real XRPL Lending Protocol.
All money in the game is simulated / paper money. Educational only.
The brokers, lenders, and borrowers in the game are fictitious. The funds are not real. This is a simulation only.

November 2026 • Simulator facts + verified XLS-65 / XLS-66 design

START HERE

Read the game and the real protocol as two layers

The simulator is built to teach the real mechanics by letting you play them. That only works if you keep the two layers separate. Where this guide says **IN THE GAME**, it describes the simulator exactly as built. Where it says **REAL PROTOCOL**, it describes XLS-65 (Single Asset Vault) and XLS-66 (Lending Protocol) as designed on xrpl.org.

IN THE GAME

Paper RLUSD (and an optional XRP toggle), seasons of 3-24 months, starting funds you can edit, credit scores, collateral, and monthly projects. You pick one role per season: Broker, Lender, or Borrower.

REAL PROTOCOL

Fixed-term, fixed-rate loans from single-asset vaults on the XRP Ledger. Not live yet (see status, page 11). No automated on-chain collateral or liquidation in the current design - underwriting happens off-chain.

The system at a glance - follow the money

1. LENDER
Deposits RLUSD or XRP into a vault

2. VAULT
Single-asset pool holds the funds

3. BROKER
Sets terms, approves loans, posts first-loss capital

4. BORROWER
Receives loan, runs project, repays + interest

Repayment flows back in reverse: borrower payment -> vault -> fees and first-loss cover are handled -> remaining interest reaches lenders. If a borrower defaults, first-loss capital is used first; losses beyond that coverage fall on the vault - in the game, as haircuts to lenders.

Question	Short answer
Who supplies the money?	Lenders / depositors, into the vault
Who decides who borrows?	The broker, using underwriting
Who pays for a default first?	The broker's first-loss capital
Who bears loss after that?	The vault - so, ultimately, depositors
What does the borrower risk?	In the game: collateral + credit. In reality: agreed loan terms, late charges, and default consequences under off-chain agreements

ROLE 1 OF 3

Broker - the operator who sets the terms and takes the first loss

The broker is not a passive middleman. The broker creates and runs the vault, chooses what can be lent, prices the risk, decides which loans happen, and puts up capital that is spent first when a loan goes bad. A careless broker does not just earn less - the broker's own capital burns first.

In the game

- **Starting position:** a vault of 100,000 (paper money), with first-loss capital set at 10% of the vault.
- **You set:** the APR (annual percentage rate), plus origination and late fees, within the game's controls.
- **You decide:** approve or deny each loan request. Approving with no loan selected and pressing Settle Month triggers an "Are you sure?" check in the game - approving nothing is a real choice with real (simulated) consequences for the month.
- **Reading a loan request - using the game's example card:** amount shown in both currencies (e.g. 5,661.46 XRP = 6,000 RLUSD at the entry price), borrower credit (732), collateral (127% of the loan), term (3 months), interest at your APR (56.61 XRP / 60 RLUSD), and estimated default risk (Moderate, ~17%). Each number answers a different question: how much, how trustworthy, how covered, how long, how much you earn, how likely it fails.
- **Your income:** your cut of interest and fees from loans that perform.
- **Your risk:** defaults eat your first-loss capital first. Approve too loosely and you subsidise bad loans; approve too tightly and the vault sits idle earning nothing.

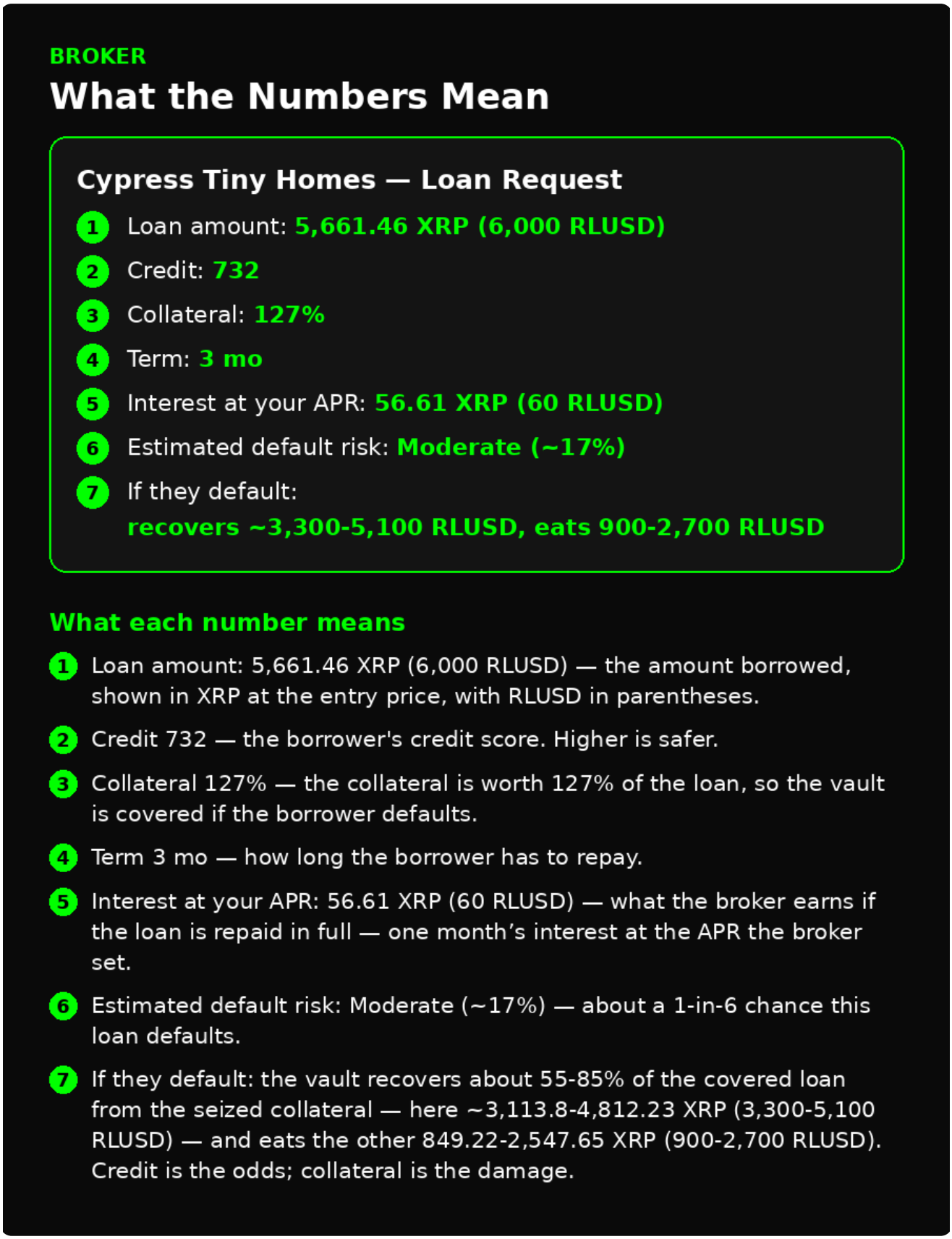
Real protocol (XLS-65 / XLS-66)

- Loan Brokers **create vaults and manage loans**. The vault owner controls the asset type, the deposit cap, whether the vault is public or private, and whether vault shares are transferable.
- The broker must maintain **first-loss capital** as a percentage of total debt owed to the vault. On default, a portion is liquidated per the minimum required cover and placed back into the vault.
- **Fee condition:** the protocol will not charge fees if the broker has not deposited enough first-loss capital. Skin in the game is not optional - it is what unlocks the broker's fees.
- Underwriting - checking whether a borrower is creditworthy - is **off-chain**. The ledger enforces the loan's payment terms; it does not judge the borrower for you.

> **Broker's core tension:** higher APR and looser approvals raise income this month and raise default exposure every month after. Price for the defaults you cannot see, not just the loans you can.

ROLE 1 OF 3 - BROKER DIAGRAM

From the game's How To Play - the Broker numbers diagram, exactly as it appears there:



ROLE 2 OF 3

Lender - the depositor who funds the vault and earns what is left

Lenders supply the actual money. In protocol language they are **depositors**. They do not pick borrowers and they do not set loan terms - they pick a *vault and a broker*, and that choice is their underwriting.

In the game

- **Starting position:** 50,000 in paper cash.
- **You choose:** which competing vault(s) to deposit into, and how much. Vaults compete on rate and on the broker behind them.
- **You earn:** interest from the loans your vault funds, after the broker's cut and fees.
- **Your risk - the haircut:** when defaults in your vault exceed the broker's first-loss coverage, the remaining loss comes out of the vault. In the game that lands on lenders as a **haircut** - you get back less than full value. First-loss capital protects you, but only up to its limit.
- **Your lever is allocation, not control:** spreading across vaults, favouring brokers with stronger first-loss cover and steadier loan books, and not chasing the highest headline rate blindly.

Real protocol (XLS-65)

- Depositors add a **single asset** to a Single Asset Vault - a vault holds one asset type, not a basket.
- In return, depositors receive **vault shares as Multi-Purpose Tokens (MPTs)**, proportional to their deposit. The shares are the record of your claim on the vault.
- Interest reaches depositors **after** the management fee (the broker's percentage of interest earned) is taken.
- Vaults can be **public or private / permissioned**. Private vaults can require credentials and know-your-business (KYB) checks before you may deposit.
- An asset issuer can **claw back** funds from a vault and can freeze accounts (see page 11) - a risk that sits above both broker and lender.

> **Lender's core question:** not "what rate is advertised?" but "who is the broker, how much first-loss capital stands in front of me, and what happens to my shares if loans default?" Yield is what remains after fees and losses - in that order.

ROLE 2 OF 3 - LENDER DIAGRAM

From the game's How To Play - the Lender numbers diagram, exactly as it appears there:

LENDER

What the Numbers Mean

Bayou Prime Lending — Vault

1. Deposit: **25,000 RLUSD**
2. APY: **11.2%**
3. First-loss coverage: **10%**
4. Interest this month: **233 RLUSD**
5. Interest earned: **1,840 RLUSD**
6. Haircut: **620 RLUSD**
7. Reputation: **84/100**

What each number means

1. Deposit: 25,000 RLUSD — the amount you put into this vault.
2. APY 11.2% — the yearly yield this vault pays.
3. First-loss coverage 10% — the broker's capital that absorbs losses before your deposit is touched.
4. Interest this month: 233 RLUSD — your deposit at this APY for one month, exactly what you earn in interest this month (25,000 × 11.2% ÷ 12).
5. Interest earned: 1,840 RLUSD — total interest earned so far.
6. Haircut: 620 RLUSD — what you lost when a default went past the first-loss cover.
7. Reputation 84/100 — this vault's track record. Higher is safer.

ROLE 3 OF 3

Borrower - the one who turns a loan into a project, or a default

The borrower receives the loan and has to do something productive enough with it to repay principal plus interest, on time, every time. Everyone else's return depends on this seat performing.

In the game

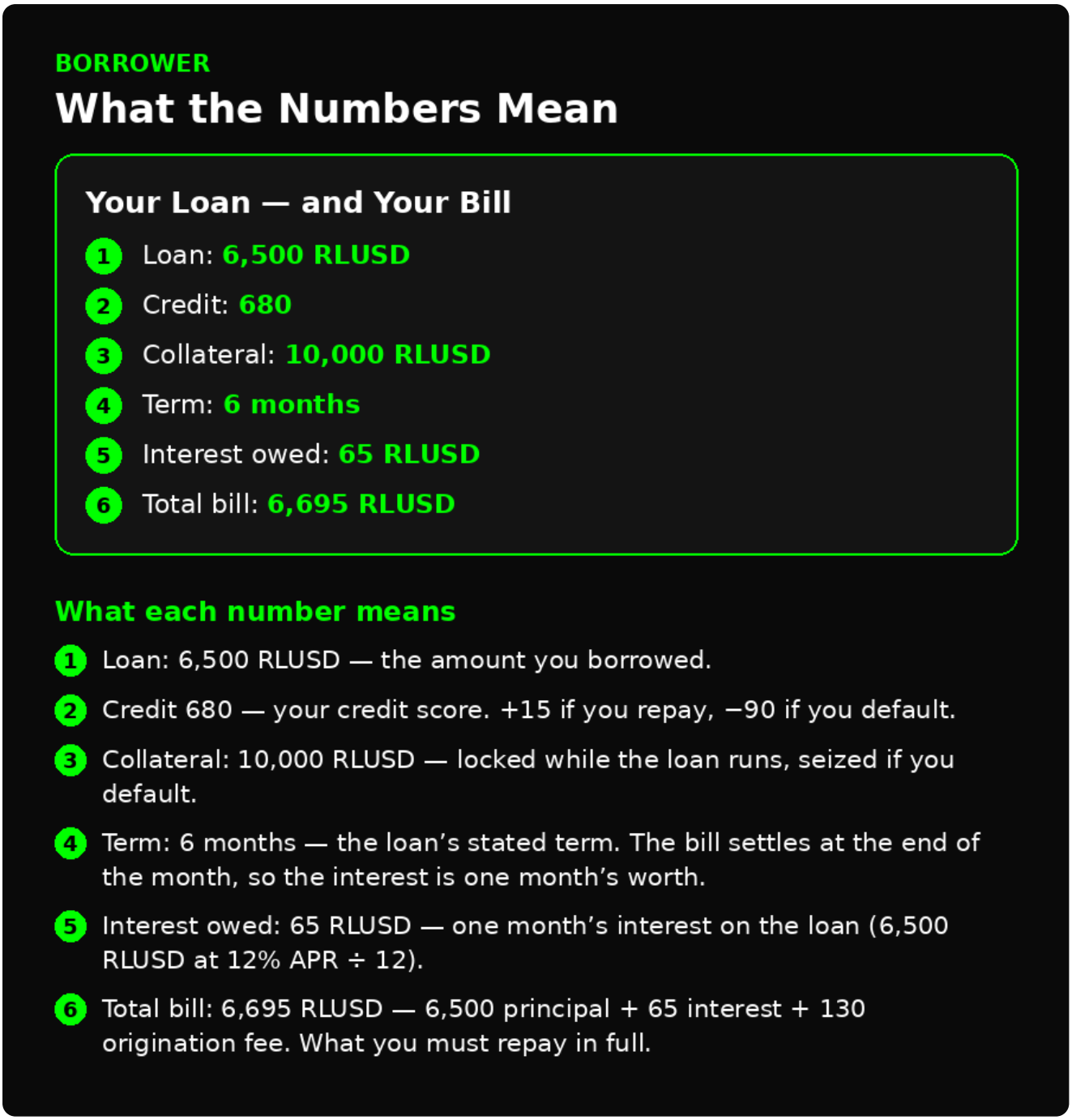
- **Starting position:** 8,000 cash + 12,000 collateral, with a credit score of 680.
- **You take:** collateral-backed loans and put them into monthly projects. Each month the project outcome, your repayments, and market events move your net worth.
- **Repay and your credit rises +15.** Repaying on time is how you unlock better standing and keep borrowing.
- **Default and two things happen:** your collateral is seized, and your credit drops -90. One default wipes out the credit built by six clean repayments (+15 x 6 = 90). That asymmetry is the lesson: credit is slow to build and fast to lose.
- **Your risk:** a project that underperforms still leaves the loan due. Interest, origination and service costs, and late charges do not shrink because the project did.

Real protocol (XLS-66)

- Borrowers receive **fixed-term, fixed-rate** loans and repay per the agreed terms. The rate and schedule are known up front - no floating-rate surprise mid-loan.
- **Critical difference:** the current design offers **uncollateralized** loans. There is **no automated on-chain collateral and no automated liquidation**. Do not import the game's collateral seizure into the real protocol.
- Creditworthiness is assessed **off-chain** by the broker / underwriter before the loan. Your real-world agreements and reputation, not an on-chain score, decide approval.
- Missed payments trigger **grace periods** before a default can be declared, plus late-interest rules and possible early-repayment charges (see Fees).

> **Borrower's core question:** will this project reliably produce more than principal + interest + fees, before the due date - even in a bad month? If the answer needs a good month to work, the loan is too big or too short.

From the game's How To Play - the Borrower numbers diagram, exactly as it appears there:



MONEY MECHANICS

Fees, structure, and terms - who gets paid, in what order

Fees decide the broker's income, the borrower's true cost, and what is left for lenders.

The three protocol fees (XLS-66, section 2.4)

Fee	Who pays / who receives	How it works
Management Fee	Taken from interest; paid to broker	A percentage of interest earned, the broker's cut taken **before** interest reaches depositors.
Loan Origination Fee	Paid by borrower; nominal amount	Taken **from the principal** - the borrower receives slightly less than the headline loan amount.
Loan Service Fee	Paid by borrower on each payment	A nominal amount **on top of each loan payment**, so every instalment costs a little more than principal + interest alone.

Plus: late-interest rules for missed or late payments, and early-repayment charges if a loan is paid off ahead of schedule. And the gate noted on page 3: **no sufficient first-loss capital, no fees** - the protocol will not charge fees if the broker has not deposited enough first-loss capital.

Structure

- **Single Asset Vault (XLS-65):** one vault, one asset. Vault owner sets asset type, deposit cap, public/private access, and share transferability.
- **Vault shares:** depositors hold shares as MPTs, proportional to deposit.
- **First-loss capital:** a percentage of total debt owed to the vault. In the game this is fixed at 10% of the vault. On default, a portion is liquidated per the minimum required cover and placed back into the vault.
- **Open-ended vs closed-ended:** LendingProtocolV1_1 adds closed-ended vaults and cash-basis accounting, alongside the original open-ended design.

Terms to check on every loan

Term	In the game	Real protocol
Term length	Season 3-24 months; individual loans show their own term (e.g. 3 mo)	Fixed term agreed at origination
Rate	APR set by broker	Fixed rate agreed at origination
Collateral	Required; shown as % (e.g. 127%); seized on default	None automated on-chain in current design
Credit	Score: +15 repay, -90 default	Off-chain underwriting; no on-chain score in the design

KNOW YOUR ASSET

XRP vs. RLUSD - same ledger, opposite risk

Choosing the vault's asset is choosing the risk. XRP and RLUSD both live on the XRP Ledger and both can sit in a vault - alongside trust-line tokens and MPTs - but they behave in opposite ways. Confusing a volatile asset with a dollar stablecoin is the fastest way to misread every number in this guide.

	XRP	RLUSD
What it is	The XRPL's **native asset**	Ripple's **US-dollar stablecoin**, issued by Standard Custody & Trust, NYDFS-regulated
Value anchor	Market price - moves freely	Designed 1:1 with USD, backed by segregated reserves
Role on XRPL	Pays transaction fees; held as reserve; used as a bridge asset	Dollar-denominated value for payments and lending without price swings
Main risk	**Price volatility** - your loan, deposit, or collateral value can jump or crash	**Depegging, issuer / counterparty, regulatory, and freeze / clawback risk**
Oversight note	Decentralised native asset; no issuer to freeze XRP itself	OCC approved Ripple National Trust Bank to manage segregated RLUSD reserves and act as collateral trustee; issuer can freeze accounts / claw back

Why this matters inside a loan

- **Borrowing in XRP:** you may repay the same number of XRP, but its dollar cost at repayment can be far higher or lower than at origination.
- **Lending in XRP:** even a perfectly repaid loan can lose dollar value if XRP falls during the term. Interest has to beat price movement, not just defaults.
- **Borrowing or lending in RLUSD:** amounts stay dollar-predictable, which makes project maths and repayment planning straightforward - but you now depend on the issuer, its reserves, and regulators.

How the game shows you this

The game's XRP toggle converts starting funds, loan amounts, and deposits at the **live CoinMarketCap price at entry**, then simulates a price move each month: usually within about **+/-12%**, but about **1 month in 6** brings a big jump (**+30% to +65%**) or a crash (**-30% to -55%**), labelled in the month-end panel and results. RLUSD seasons show none of that price drama - by design. Play one season each way and the difference stops being abstract: same decisions, completely different net worth, purely from the asset.

> **Rule of thumb:** RLUSD answers "how many dollars?" XRP answers "how many dollars *right now*?" Never plan a repayment, a budget, or a yield expectation in XRP without asking what happens if the price moves 30-50% against you mid-term.

ANYTHING ELSE YOU MISSED

Status, safeguards, and powers that change the risk

1. It is not live yet - amendment status

As verified on **November 9, 2026**: **LendingProtocol had 22 of 35 validator votes** and **SingleAssetVault had 23 of 35**. Activation needs **29 of 35 held for 2 weeks**. Until that threshold holds, the real protocol cannot be used on mainnet - everything real-protocol in this guide is design, not a live product. Re-check vote counts at the time you act; they move.

2. Off-chain underwriting does the heavy lifting

Because loans are uncollateralized on-chain, the real protection is work done *before* the loan: identity, business, and credit checks off-chain, plus legal agreements. The ledger records and enforces payments; it does not recover money from a borrower who simply cannot pay.

3. Grace periods and how default actually happens

A missed payment does not equal instant default. **Grace periods** run first; only after them can a default be declared. Then first-loss capital is drawn per the minimum required cover and placed back into the vault, late-interest rules apply, and any remaining shortfall hits the vault. In the game this is compressed into collateral seizure and the -90 credit hit so you can feel it in one season.

4. Permissioned vaults, credentials, and KYB

Vaults are not all open to everyone. A vault can be private / permissioned, requiring credentials and KYB verification. That limits who can deposit or borrow, and it is a feature for regulated or institutional use - not a bug.

5. Issuer clawback and freeze - a power above the vault

Asset issuers can **claw back funds from a vault**, **freeze individual accounts**, or issue a **global freeze**. For a trust-line asset like RLUSD, that means your vault position also depends on the issuer's actions and obligations - a risk XRP itself does not carry in the same way.

6. Vault shares are tokens (MPTs)

Your deposit is represented by share tokens. Whether those shares are **transferable** is a setting the vault owner controls - do not assume you can sell or move a share until you have checked that setting and the vault's open / closed-ended terms.

DO NOT MIX THEM UP

Game vs. real protocol - side by side

Feature	The Game	Real Protocol (XLS-65 / 66)
Money	Simulated / paper only	Real assets, once activated
Collateral	**Yes** - required, seized on default (added for playability)	**No** automated on-chain collateral or liquidation
Credit score	**Yes** - starts 680, +15 / -90 (added for playability)	No on-chain score; off-chain underwriting
First-loss capital	10% of the vault	A percentage of total debt owed to the vault; minimum cover rules apply
Fees	Broker sets APR, origination and late fees in-game	Management, origination, and service fees per XLS-66 s.2.4, plus late / early rules
Seasons / terms	Seasons 3-24 months, monthly projects and events	Fixed-term, fixed-rate loans; grace periods before default
XRP price	Entry at live CoinMarketCap price, then simulated monthly moves	Real market price, continuously
Status	Playable now	Not yet activated (22/35 and 23/35 on Nov 9, 2026; 29/35 for 2 weeks needed)

Save your files for review

> **Your season does not have to disappear when it ends.** After a season ends in the simulator, go to the **See Results** screen and use **Save Results**. That saves the full season record - **every transaction in order, plus the credit / reputation story** (where it started, how it changed, and where it finished) - as a file on **your own device**, so you can look back at it and review it later.

Use saved results to learn, not just to keep score:

- Re-read *why* a loan was approved or a vault was chosen, next to what actually happened month by month.
- Compare Broker, Lender, and Borrower seasons side by side - same mechanics, different seat, different lesson.
- Check the XRP price history in an XRP season against your decisions at the time.
- If you print, save the file first, then print it from your device - the game itself does not print directly.

Privacy, plainly: all saved files stay **only on your own device**. The game does not hold, see, or receive your saved results or player data. What you save, where you save it, and whether you share it is entirely up to you.

WHY PRACTICE FIRST

The importance of a simulator versus the real thing

A simulator lets you learn the moves before any real money is on the table. That is not a lesser version of learning - for lending, it is the safest place to learn the lessons that are expensive anywhere else.

Learn by making the mistakes here

- **Only fake paper money is at risk.** You can try each role, make mistakes, approve a bad loan, watch a default eat through first-loss capital, or live through a simulated XRP price crash - and see the full consequences without losing any real money.
- **Failure becomes information.** A denied loan that would have defaulted, a haircut after loose approvals, or a credit score wrecked by one default (-90 in the game) teaches more than a warning label, because you watched the chain of cause and effect yourself.

Test strategies and compare outcomes

- **Run the experiment:** high APR vs. low APR, tight vs. loose approvals, concentrating in one vault vs. spreading across vaults, XRP vs. RLUSD.
- **Compare across seasons:** save each season's results (page 12) and put them side by side. Same mechanics, different choices - which strategy actually left net worth higher, and what risk did it take to get there?
- **Build mechanical fluency:** fees, first-loss capital, haircuts, credit, and collateral stop being vocabulary and become numbers you can read at a glance. If you later use the real protocol, you already know what each number means and what can go wrong.

> **The limit, plainly:** a simulator is a teaching tool, not the real market. Real lending carries real loss, real off-chain underwriting, real regulation, real counterparties, and outcomes - market moves, defaults, freezes, legal consequences - that no simulator can fully reproduce. A good season in the game proves you understand the mechanics. It does not prove a real loan, vault, or strategy is safe.

Use it in that order: learn in the simulator, verify in the real protocol's current documentation and status, and only then - with real advice and money you can afford to lose - consider the real thing.

PUT IT TOGETHER

One loan, month by month - and a checklist before you act

The lifecycle

1. Deposit: lender puts RLUSD or XRP into a vault and receives MPT shares. **2. Setup:** broker has first-loss capital in place and terms set. **3. Underwriting:** borrower is checked (in-game: credit + collateral; in reality: off-chain). **4. Origination:** loan is issued, origination fee taken from principal. **5. Each month:** borrower pays principal + interest + service fee; late payments accrue late interest and enter grace. **6. Distribution:** management fee to broker, remaining interest to depositors via the vault. **7. End:** loan repays in full - or defaults after grace, first-loss capital covers first, vault absorbs the rest.

Before you deposit, lend, or borrow - ask

- Which asset is the vault in - XRP or RLUSD - and can I handle that asset's risk for the full term?
- Who is the broker, how much first-loss capital is posted, and is it enough for fees to even be charged?
- What are all three fees, plus late and early-repayment charges - not just the headline APR?
- Is the vault public or permissioned? Are shares transferable? Open-ended or closed-ended?
- Could the asset issuer freeze or claw back funds in this vault?
- For borrowers: does the project still repay the loan in a bad month?

Quick glossary

APR: annual percentage rate, the yearly cost of borrowing. **Vault:** single-asset pool holding deposits. **MPT:** Multi-Purpose Token; here, a vault share. **First-loss capital:** broker capital spent first on defaults. **Haircut:** a reduction in what a lender gets back when losses exceed cover. **Grace period:** time after a missed payment before default can be declared. **KYB:** know-your-business verification. **Clawback / freeze:** issuer powers to reclaim funds or lock accounts. **XLS-65 / XLS-66:** the XRPL standards for Single Asset Vaults and the Lending Protocol.

> **Educational only - not financial advice.** This guide explains a simulator and a proposed protocol design for learning. All money in The Lending Protocol Game is simulated. The real protocol was not yet activated as of the November 9, 2026 vote check in this guide - verify current status, terms, fees, and risks from official XRPL sources and qualified advice before making any financial decision. The brokers, lenders, and borrowers in the game are fictitious. The funds are not real. This is a simulation only.

Sources for real-protocol facts: xrpl.org Lending Protocol and Single Asset Vault documentation and XLS-65 / XLS-66 specifications, as verified for this guide. Game facts are taken from The Lending Protocol Game as built (starting funds, credit changes, season lengths, XRP simulation, and Save Results behaviour described in the game).