

Prof. Dr. Jörg Osterrieder

BSc Blockchain, Crypto Economy & NFTs

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# The Puzzle, and What You Will Learn

**The puzzle:** the world owns roughly \$400 trillion of real things (houses, shares, loans, bonds). Less than one hundredth of one percent of it has been put onto a blockchain.

The gap is a business, legal, and regulatory problem, not a technology one.

## After this mini-lecture you can:

say what a real-world asset is; name the three steps of the value chain; explain why a regulatory licence is the strongest business moat in this field.

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This is the condensed version. The full ultra-simple deck adds the worked business examples, a student exercise, and a technical appendix.

# What a Real-World Asset Is

A **blockchain** is a shared digital notebook that nobody can secretly edit. A **token** is one entry in it, recording who owns what. Think of a token as a coat-check ticket: it is not the coat, but whoever holds it can claim the coat.

To **tokenize** something is to create a token that stands for owning a real thing. A **Real-World Asset (RWA)** is a real, off-chain thing (a flat, a loan, a bond) plus its token.

## The key idea

The token is always a **claim** on the asset.  
It is never the asset itself.

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Crypto-native assets like Bitcoin exist only on the blockchain. An RWA exists in the real world first, and gets a token second.

# Two Things That Make It Hard

## The legal box: the SPV

A token cannot transfer the legal title to a building by itself. The fix: a small one-job company, a Special Purpose Vehicle (SPV), legally owns the building. The token is then a share of the SPV, and courts understand company shares.

## The blind blockchain: the oracle

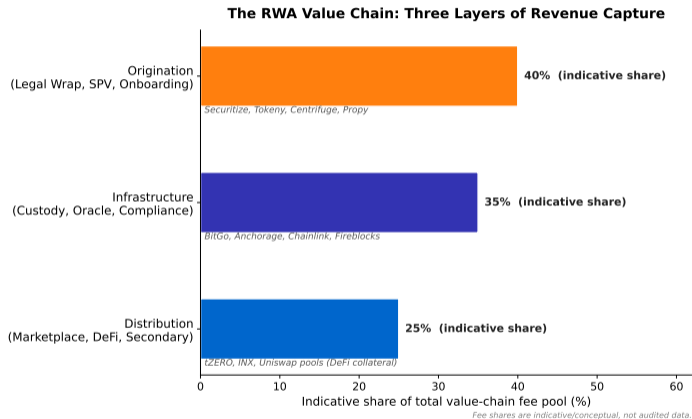
A blockchain cannot see the outside world. An **oracle** is software that feeds outside facts in (for example, that the building still exists). Someone has to be trusted to run the oracle honestly.

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Watch the pattern: the token is never the asset. There is always a legal box and an oracle standing in between.

# The Value Chain: Three Steps

Turning a real asset into a token people can buy takes three steps. Together they are the **value chain**.



Origination (find and prepare the asset) earns a big one-time fee. Infrastructure (the plumbing) earns a small recurring fee. Distribution (selling the tokens) earns a thin fee on volume. Winning startups own one step deeply.

# Four Places It Already Works

## Real estate

Own a fraction of a property from as little as \$50. The moat is the legal company per property, not the token.

## Private credit

Small lenders join a loan pool. Tranching splits it: a senior layer is paid first and is safer; a junior layer absorbs losses first and earns more.

## Trade finance

Funding the unpaid bills (invoices) that suppliers wait on. The catch is coordinating many parties, not the technology.

## Carbon credits

The warning sector: easy trading can amplify a flawed market instead of fixing it.

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One pattern across all four: the technology works. The catch is always legal, regulatory, or about coordination and trust.

# Who Loses, and How the Giants Respond

## Most at risk

Transfer agents and fund administrators do mostly record-keeping, which a smart contract can automate.

## Adapting instead

Custodians and prime brokers rest on trust and licences, so they change shape and often grow.

## Co-option

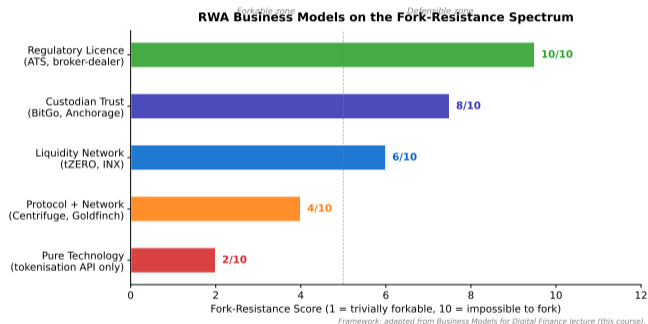
Instead of fighting tokenization, the giants adopt it. JPMorgan, BlackRock, and Franklin Templeton run their own tokenized products. They are choosing to become the infrastructure.

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For a startup the question is not how to beat BlackRock, but which niche BlackRock will not bother to serve.

# Moats: What Cannot Be Copied

A **moat** is what makes a business hard to copy, like the water ditch around a castle. **Fork-resistance** asks: if a rival copied all your code tonight, would you still be safe tomorrow?



Code can be copied in days, so it is never a moat. A regulatory licence takes years to obtain and cannot be copied: it is the strongest moat in real-world assets.

# How the Businesses Earn

RWA platforms earn through **fees**, like an ordinary finance firm: a one-time fee when an asset is brought on-chain, plus a small ongoing fee on the assets they manage.

## Two quick examples

**Centrifuge:** its code was copied by rivals; the real moat is its network of loan originators.

**RealT:** the moat is one legal company per property, never the token.

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The same lesson twice: the software is copyable, the relationships and the legal structure are not.

# What Could Break It

Four ways an RWA business can fail. Notice that not one of them is a blockchain bug.

- The asset is not really there: the custodian or oracle lies
- The rules change: a regulator reclassifies the token
- The loans go bad: an ordinary credit downturn
- The token distorts the market: easy trading spreads a flaw

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These are old finance and trust problems reappearing on-chain. A blockchain records honestly; it cannot make the off-chain world honest.

# Key Takeaways

- 1 A real-world asset is a real thing plus a token, and the token is always a claim, never the thing.
- 2 The value chain has three steps: origination, infrastructure, distribution. Winners own one deeply.
- 3 The moat is almost always a licence or a relationship, hardly ever the software.
- 4 We are very early; the hard problems left are legal and commercial, not technical.

**The builder's question: which step of the value chain can you own, and what moat defends it?**

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Two quick-check questions follow, so you can test the main ideas before moving on.

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**Answer: C** Origination, finding and preparing the asset, is high-margin and paid once.

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**Q6. How do most RWA platforms make money?**

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**Answer: B** RWA platforms earn fees, much like an ordinary finance firm.