Platforms, Tokens, and Interoperability

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Enforcibility and Monopoly

Enforcibility:

Monopoly:

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Fragile monopoly:

Open banking shuts down uncollateralized credit provision
Total interoperability too

Enforcibility

Classic approach: collateral-based or credit-based

This paper relies on neither collateral nor repeated interaction

- bundling of services gives platform extra leverage
- defaulter cannot lend nor buy on the platform
- a fundamentally novel approach?

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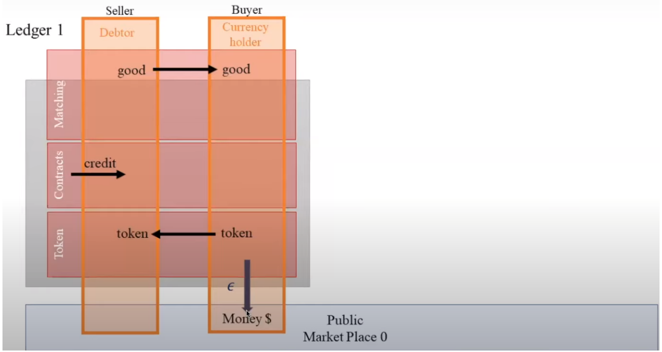
Is bundling necessary for enforcement?

Credit provision is self-enforcible: Defaulter cannot lend on the platform



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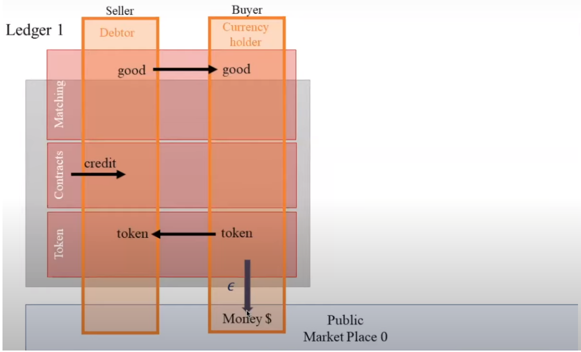

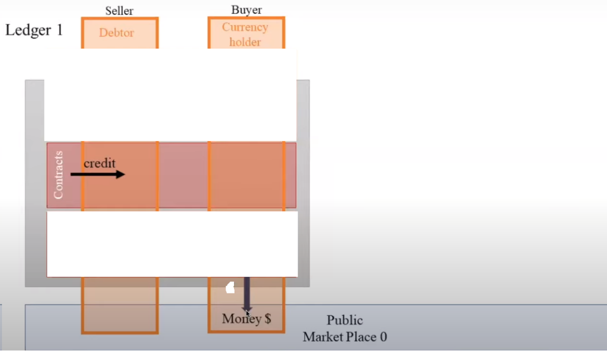

Credit provision is self-enforcible

With bundling: Sellers repay the loan if

$$\frac{\left(\frac{1}{2}\left(\frac{(1-\eta+\epsilon\eta)}{p^0}\right)^{\xi^b}+\frac{1}{2}\left(\frac{\zeta^1}{p^1}\right)^{\xi^b}\right)^{1/\xi^b}}{\frac{1}{p^0}}q^0e^{R^d/(\rho+\lambda^b)}>\frac{1}{\kappa^0}$$

The RHS is the relative benefit of repaying. The first term, $\frac{\bar{\nu}^b(\eta,\epsilon)}{1/p^0}$, is the relative benefit of being able to access the platform trading technology. The second term, $q^0e^{R^d/(\rho+\lambda^b)}$ is the relative benefit of being able to access the ledger technology. The LHS is the relative benefit of defaulting.

Without bundling: Sellers repay the loan if

$$\cancel{\frac{\left(\frac{1}{2}\left(\frac{(1-\eta+\epsilon\eta)}{p^0}\right)^{\xi^b}+\frac{1}{2}\left(\frac{\zeta^1}{p^1}\right)^{\xi^b}\right)^{1/\xi^b}}{\frac{1}{p^0}}}q^0e^{R^d/(\rho+\lambda^b)}>\frac{1}{\kappa^0}$$

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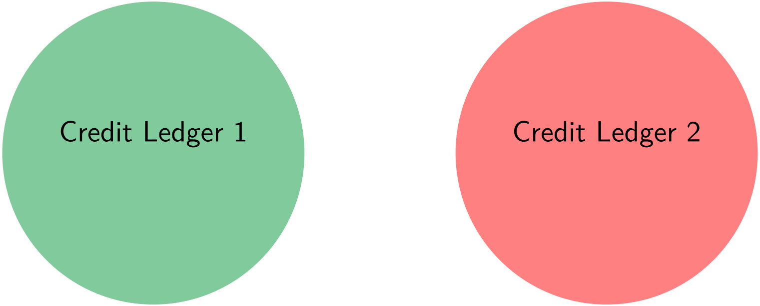

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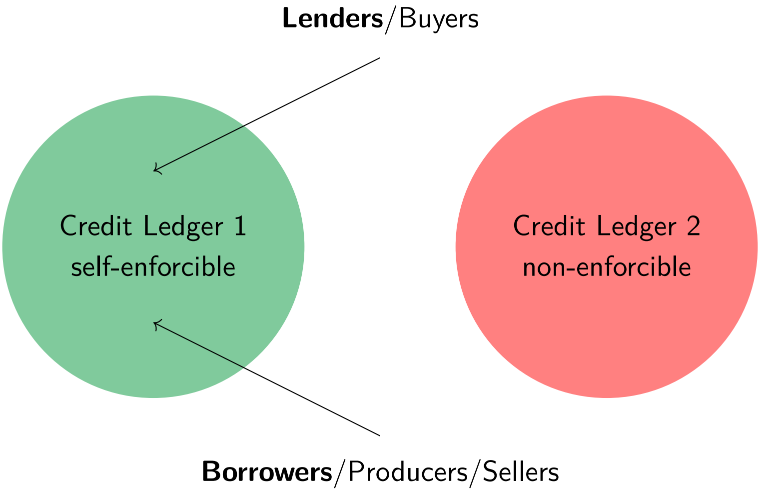

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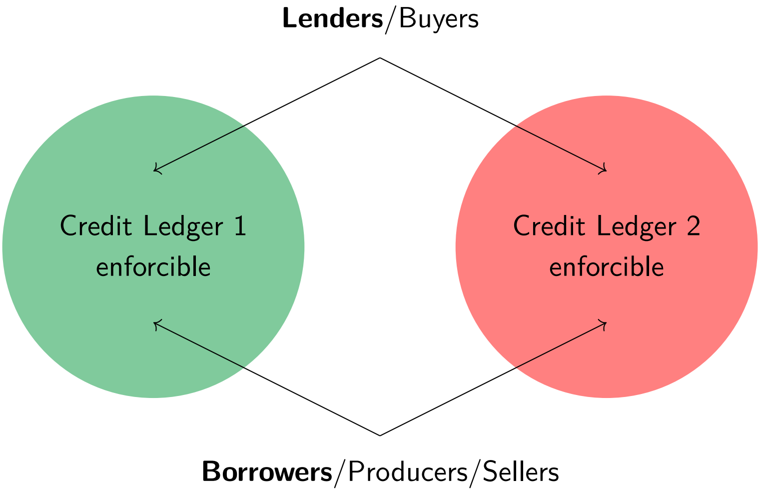

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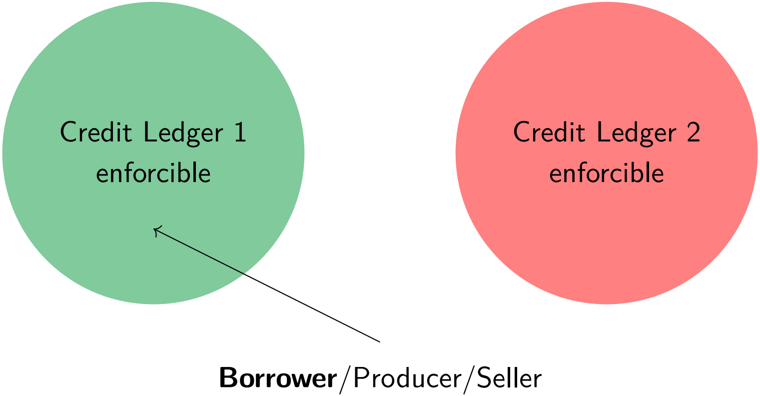

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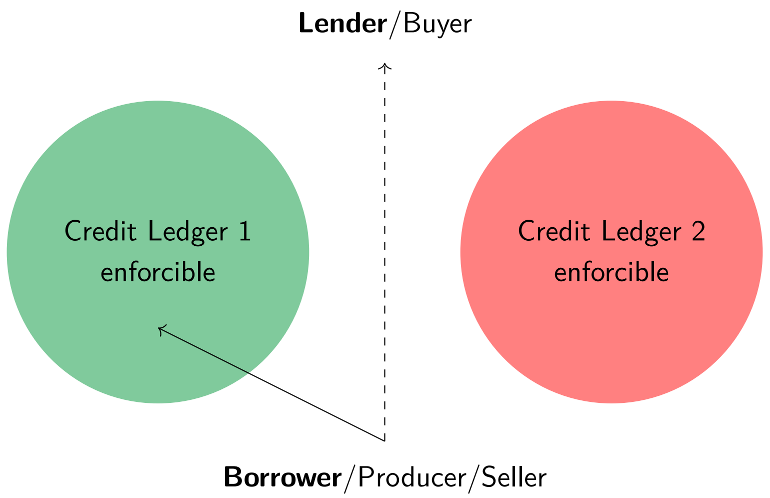

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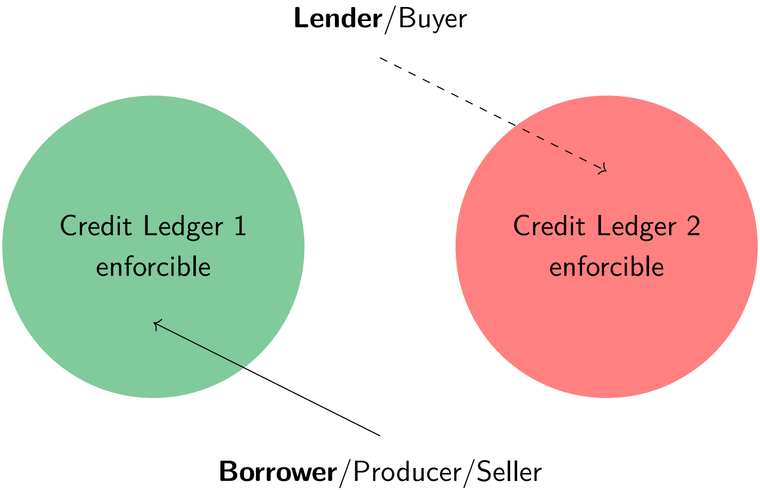

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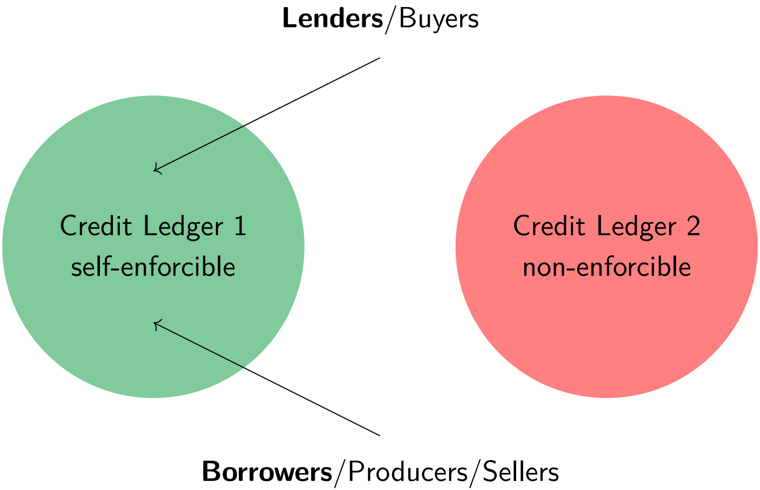

Interoperabilty

Tangible difference: Interoperability plays no role in the simplified model

Implication:

- Regulations on interoperability (open banking etc.) do not necessarily affect enforcibility
- Without repeated interaction, regulations on interoperability may not alter the natural monopoly of uncollateralized credit provision

Interaction between interoperability, enforcibility and monopoly

Summary

- Rich model that generates
  - synergy between ledger and matching services
  - various ways to control interoperability and keep monopoly
  - regulations on interoperability shuts down uncollateralized credit market
- Thought provoking about enforceability and monopoly
- Main suggestion: Simplify the model
  - credit provision is self-enforcible
  - credit provision is natural monopoly
  - Interaction between interoperability, enforcibility and monopoly