

Hyperledger Capital Markets SIG

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Insurance Linked Securities & Ricardian Contracts

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Agenda

1. Ricardian contracts
2. Securitization
3. Insurance Risk transfer
4. Liquidity
5. Liquidity contracts

What Is A Ricardian Contract

- A software pattern
- A single document
- Human readable
- Machine parsable
- Immutable commitment (hashing, signatures)
- Implementable using a smart contract
- Dispute resolution uses original contract

Implications of A Ricardian Contract

- Hash creates a contract that cannot be changed.
- The Ricardian PKI Delivers Clarity. Public Key of the Issuer and of the signing key are in the contract
- Validating the Issuer's Key, through relationships
- Presumption of Possession (i.e. the user has the contract).

Finance

Value

Governance

Accounting

Rights

Software Engineering

Cryptography

[2]

Securitization

Issuer designs a financial instrument from a pool of assets

Underlying asset may generate cash flows

Create fungibility from non-fungibility

Create liquidity

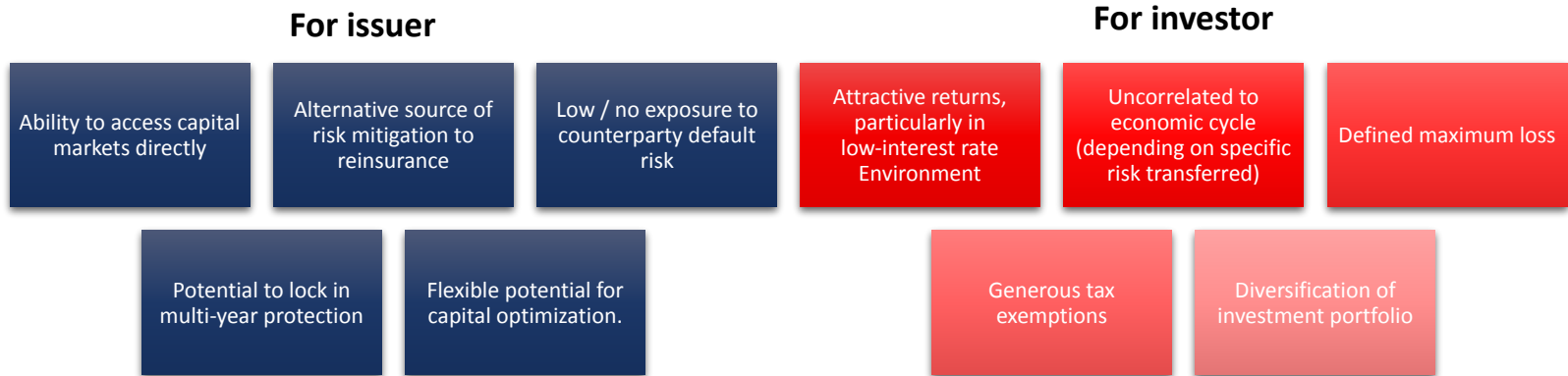
Cons: Lack of transparency

Insurance Linked Securities

Insurance Linked Securities (ILS) are financial instruments, which are sold to investors, where the value of the security is linked to an insurable loss event.

ILS are an alternative form of risk mitigation for insurance and reinsurance firms, offering a means for them to transfer risk to the capital markets through insurance special purpose vehicles (ISPVs)*

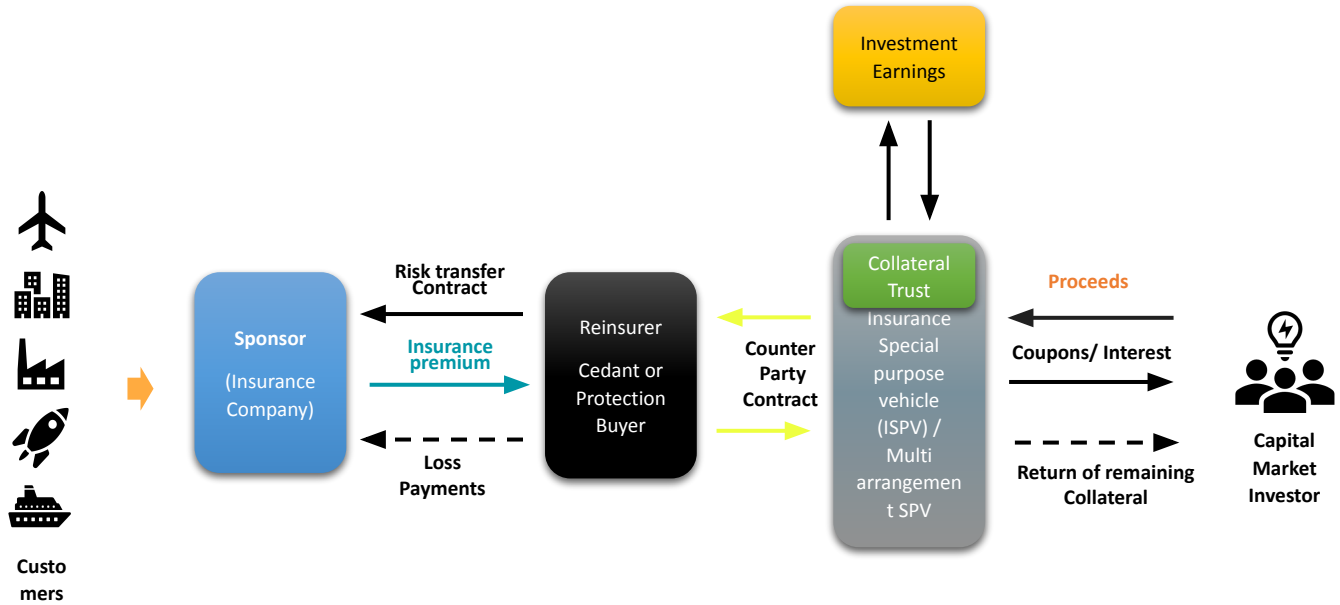
What are the benefits? **



*FCA
** Actuaries UK

Generic structure: Insurance Linked Securities

Simplified view of transforming risk into a financial instrument



Liquidity

Market liquidity refers to ease with which assets can be sold in a market at a **reasonable price**.

Price stability is important

How easy is it to convert an asset to cash

Liquidity- Proxies

Bid-Ask Spread

Price volatility

Number of transactions/period

Liquidity- Contract - Accepted Market Practice

An issuer may enter into a 'liquidity contract' with a financial intermediary. The issuer places a certain amount of own shares or a certain sum at the disposal of the financial intermediary (FI) so that the latter is able to carry out purchase and sale operations on the spot market on the issuer's behalf, on shares issued by itself.

[Ref](#)

Ricardian contracts for liquidity contracts

References

1. Ian Grigg, [Guide to Ricardian Contracts](#), [WebFunds](#) project
2. Ian Grigg, "[Financial Cryptography in 7 Layers.](#)" 4th Conference on Financial Cryptography, Anguilla, 2000.
3. <https://www.fca.org.uk/publications/policy-statements/ps17-24-handbook-changes-insurance-linked-securities>
4. http://www.cmvm.pt/en/Legislacao/National_legislation/Recommendations/Documents/Contratos%20de%20LiquidezPMA.Ingles.docx.pdf