Fintech 2.0 - Post trade clearing and settlement

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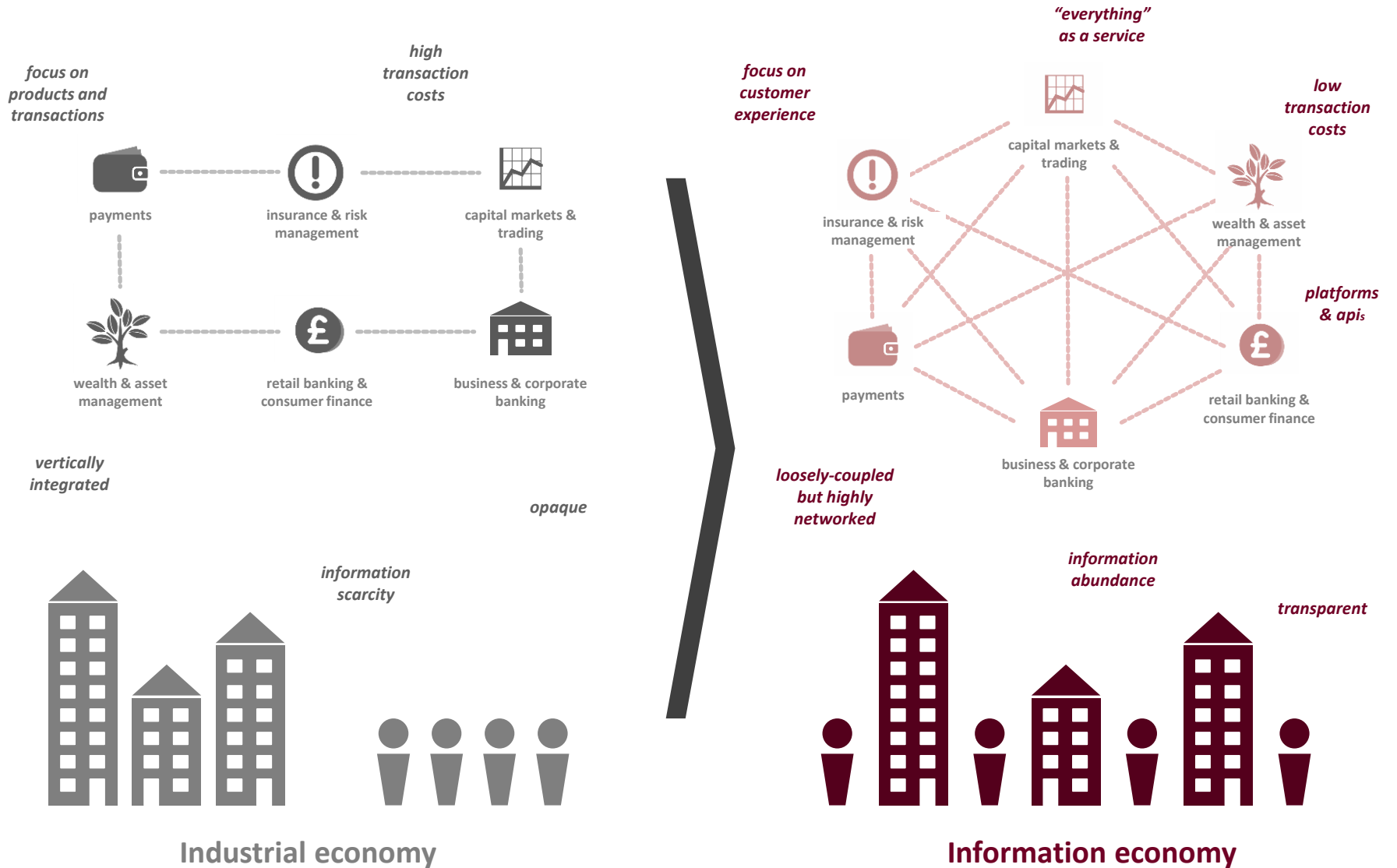
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What is Fintech?

Redesigned Financial Services for a new competitive environment

focus on products and transactions

high transaction costs

payments

insurance & risk management

capital markets & trading

wealth & asset management

retail banking & consumer finance

business & corporate banking

vertically integrated

opaque

information scarcity

Industrial economy

focus on customer experience

"everything" as a service

low transaction costs

capital markets & trading

insurance & risk management

wealth & asset management

payments

platforms & apis

business & corporate banking

retail banking & consumer finance

loosely-coupled but highly networked

information abundance

transparent

Information economy

These trends are fast becoming permanent features of Financial Services

- **But have been slow to filter into the industry**

- **Why? As financial services have been typically characterised by:**

    - High barriers to entry

    - Very entrenched incumbents

    - A high degree of regulation

- **Though an increasing number of new (Fintech) ventures that are embracing these trends**

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Moving to Fintech 2.0

- **Fintech 1.0: New players that took advantage of advances in digital technology and delivered products that were user friendly and less costly to deliver**

  - The market share of these players is growing, but their effect on the overall financial services industry has been minor

- **Fintech 2.0 will be characterised by:**

  - Policy shifts towards open data and APIs

  - Proliferation of Fintech into middle and back office processes

  - Fundamental changes to the infrastructure and processes at the core of the financial services

- **Fintech 2.0 represents a broader opportunity to re-engineer the fabric of global financial services**
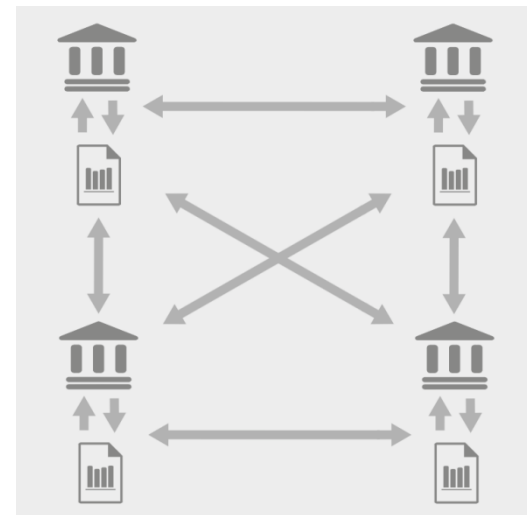
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Interesting as a technology rather than a currency

Was the first example of functioning blockchain:
- a means of decentralised value exchange
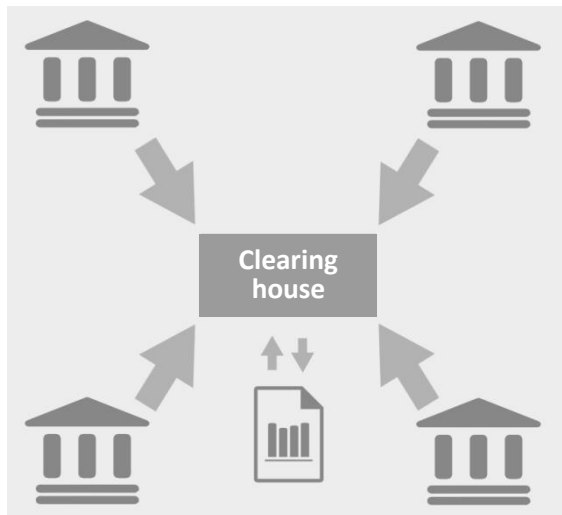
Centralised ledger

Distributed ledger

The attractive features of distributed ledgers

- **Closed as well as open**
  - Unlike Bitcoin - closed ledgers require participants in the network to be already identified

- **Irrevocable and lower cost transactions**
  - Clearing and settlement near instantaneous, more accurate trade data and reduced settlement risk

- **Guaranteed correct execution**
  - Tamper resistant due to peer to peer architecture; less need for supervision and associated costs

- **Transparency**
  - Accessible historical records of all transactions created for effective auditing by participants, supervisors and regulators

- **Wide applicability**
  - Almost any intangible document / asset can be expressed in code to be used in a distributed ledger
  - *Applicable to any financial instrument: bonds, equities or derivatives*

Computer programs that can automatically execute the terms of a contract

- relies on computer programs being able to trigger payments

Major open source smart contract projects

eris INDUSTRIES

Software that allows anyone to build their own secure, low-cost, data infrastructure using blockchain and smart contract technology

ethereum

A community-driven project aiming "to decentralise the internet and return it to its democratic roots"

CODIUS

A platform for securely executing smart contracts and other types of smart programs - developed by Ripple Labs

The potential application of distributed ledgers to securities settlement

Post trade lifecycle:

Matching	Clearing	Life cycle management	Collateral managemet and valuation	Settlement	Custody

- *Automated clearing upon trade completion*
- *Real time updates on security title and interests*

- *Access to multiple users for robust monitoring*

- *Increased transparency: no information asymmetry*
- *Real time updates on positions of underlying collateral*

- *Point-to-point settlement, lowering the cost and risk of transactions*

- *Robust custodian services with smart contracts - eliminating intermediaries*

So what?

2 outcomes:

Total disruption

All market participants have direct access to a decentralised securities depositary:

- Access to the exchange and to post-trade infrastructure of clearing and settlement

OR

Integration of distributed ledger tech into the post-trade ecosystem

Custodians or settlement infrastructures use it to record ownership trades between them

- Investors required to use a custodian to have access to the market

- Ledger accessible to authorised market participants only

Fintech companies already working in the space

Mirror

A smart contracts platform that democratises access to financial markets

- *Peer-to-peer contract creation and settlement*

- *Cleared on the Bitcoin blockchain*

- *No trusted intermediary required*

- *No central custodial risk*

Digital Asset Holdings

Technology company whose mission is to reduce settlement latency and counterparty risk

- *Uses distributed ledgers to track and settle both digital and mainstream financial assets*

- *Will admit creditworthy (agreed and vetted) members to trade between themselves*

Why is post-trade ripe for change from the status quo?

- **Has been traditionally dominated by expensive and proprietary technology, and inefficient manual processes**

- **Forces of change:**

  - Greater regulation (inc. MiFID II / MiFIR and EMIR)

  - Need for cost reduction (as trading margins are squeezed)

  - Shorter settlement cycles (introduction of T+2 in Europe)

'You never change things by fighting the existing reality. To change something, build a new model that makes the existing model obsolete."

- Buckminster Fuller