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Tr

(1/16) Global Finance Fundamentals: Settlement and the DTCC

Who actually owns a stock/bond? What happens when you buy/sell a security? How do we handle the complexity of billions of trades every single day?

Looking to understand world trade? This thread is for you!

(2/16) Settlement is the "final step in the transfer of ownership, involving the physical exchange of securities or payment".

After settlement, the obligations of all the parties have been discharged and the transaction is considered complete.

(3/16) Example:

- 1) You enter a farmer's market and approach a farmer selling apples
- 2) You speak to the farmer and agree to purchase 10 apples for \$10
 - the trade has been entered
- 3) You hand the farmer \$10 and he hands you 10 apples
 - the trade has been settled

(4/16) Before a trade has been settled, the deal is still pending. If the buyer becomes insolvent or the seller's inventory is destroyed, the deal is at risk.

After settlement, the property rights have transfer to the buyer permanently. Counter-party risk is eliminated.

(5/16) Prior to modern financial systems, settlement involved physical pieces of paper (representing ownership) and in-person exchanges for money.

While complicated and prone to disruption/errors/fraud, our ancestors built the modern world with physical settlement systems.

(6/16) From the early days of the savannah up until the 1960s, finance settled physically. Certificates, transfer forms and other documents swirled in an endless tornado; the entire world's wealth wrapped up in an impossibly massive amount of paper.

And then, the Paper Crunch.

(7/16) In 1965, ~5MM stocks were being traded daily on the NYSE, creating an overwhelming paperwork burden.

3 years later, NYSE volumes reached 15MM per day.

Certificates were left out for weeks. Stocks were sent to wrong addresses. Overtime was mandatory. Turnover reached 60%.

(8/16) Wall Street's first response was to borrow from the Europeans, following in the footsteps of the Austrians.

The idea: centralization. Hold all paper stock certificates in one location, manage & exchange assets centrally

(9/16) In 1968, the NYSE created the Central Certificate Service (CCS). The CCS transferred securities electronically and kept track of the shares held by NYSE members.

The CCS would transform a few times before becoming the Depository Trust & Clearing Corporation (DTCC).

(10/16) The DTCC has many subsidiaries and operates in more capacities than could possibly be described, but it has two main purposes:

- Maintain ownership records of the US financial system
- Facilitate settlement for all trades within the financial system

(11/16) The Depository Trust Company (DTC - a DTCC subsidiary) is responsible for ownership records.

Acting as the central securities depository for the US, the ownership of (nearly) all financial assets are determined by the journal entries at the DTC.

https://en.wikipedia.org/wiki/Central_securities_depository

(12/16) The National Securities Clearing Corporation (NSCC) and the Fixed Income Clearing Corporation (FICC) are responsible for a trade from the time after the deal is made until it is settled.

Both the NSCC and the FICC are DTCC subsidiaries

https://en.wikipedia.org/wiki/Central_counterparty_clearing

(13/16) The market is a space for potential deals. When a deal is made, a trade is entered.

The trade is executed by the NSCC or FICC which ultimately record the change in ownership in the DTC (all of which are owned by the DTCC).

(14/16) While the DTCC is a uniquely American creation, it has clearly shown the value of centralized clearing.

In 2011, DTCC settled the vast majority of securities transactions in the United States and close to \$1.7 quadrillion in value worldwide.

Quadrillion.

(15/16) Centralization provides so many benefits:

- universal agreement
- efficient clearing/settlement
- pooled liquidity
- specialization
- reduced administration and coordination requirements

All of these deliver improved performance and reduced costs the DTCC's customers

(16/16) The DTCC is a monument to centralization, a testament to the power of concentration. It provides countless benefits, all for the small price of giving up control.

You just gotta trust the guy in charge. Today and tomorrow. In celebration and in conflict.

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