

Discussion of Duffie (2026)
**“The Payment System Puts a Floor on
the Fed's Balance Sheet”**

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Policy Levers to Reduce Fed's Reserve Footprint

#	Policy lever	How it works	Key pro	Key con	Timeline
1	Temporary open market operations (TOMOs)	Fed offsets TGA swings and quarter-end FBO window-dressing with same-day repos / reverse repos	No legislation needed – FOMC can act tomorrow; already partially in use	Cannot perfectly forecast shocks	Fastest near-term
2	Intraday liquidity regulation reform (Reg YY / CLAR)	Allow non-HQLA collateral at Fed facilities to count toward liquidity requirements; reduce supervisory bias toward reserves over Treasuries	Directly reduces banks' 'red line' reserve floor; no new infrastructure required	Tension with post-GFC prudential objectives	Medium 1–2 years
3	Add LSM to Fedwire ★ Structural fix	Build bilateral / multilateral netting queue into Fedwire	Only option that reduces gross demand at source; breaks throttling coordination failure; covers all 10,000+ participants	Multi-year systems project; all large banks must retool; incentive design is hard	Multi-year start now?
4	Tiered reserve remuneration (Two-tier IORB)	Pay full IORB up to a quota sized to each bank's payment needs; lower rate on excess balances; banks lend surplus reserves	Revives interbank lending; reduces Fed interest expense	Likely requires legislation; quota design is hard; banking industry will oppose strongly	Hard multi-year

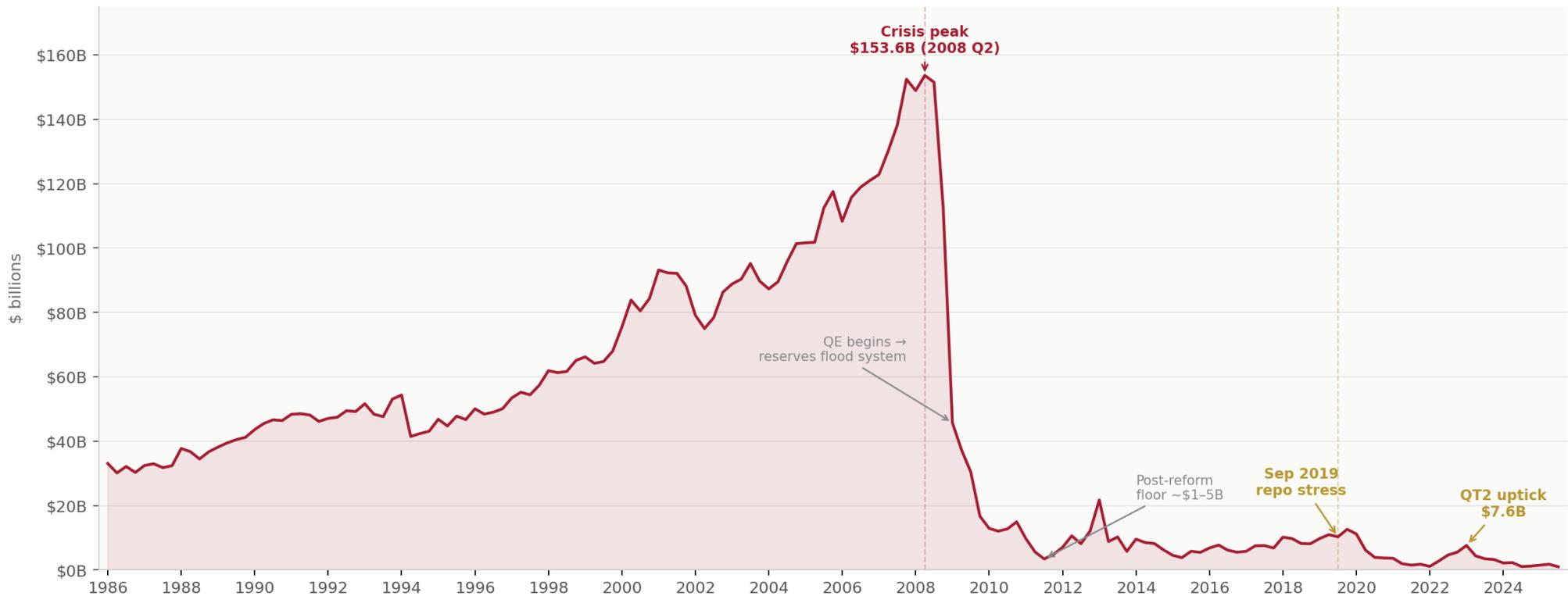
Outline of Discussion

1. Why did not Fedwire develop LSM?
2. Should we start thinking about adding LSM to Fedwire **NOW**?
3. Is LSM a public good?

I. Why did not Fedwire develop LSM?

Reason #1: Daylight Overdraft

Peak Fedwire Funds daylight overdrafts — quarterly, 1986-2025



Source: Federal Reserve Board, Peak Daylight Overdrafts—Quarterly ([federalreserve.gov/paymentsystems/psr_dlodpkqtr.htm](https://www.federalreserve.gov/paymentsystems/psr_dlodpkqtr.htm)). Fedwire Funds series only. Average of daily peak overdrafts within each quarter.

Reason #2: CHIPS

How CHIPS® works:

21-hour processing day

9:00 PM

- CHIPS Account opens at FRB NY.
- CHIPS opens for payments.
- Participants may prefund and begin sending payments.

9:00 PM - 6:00 PM

- Participants that have contributed their required prefunding can send and receive payments.
- Participants can contribute supplemental funding.

6:00 - 6:30 PM

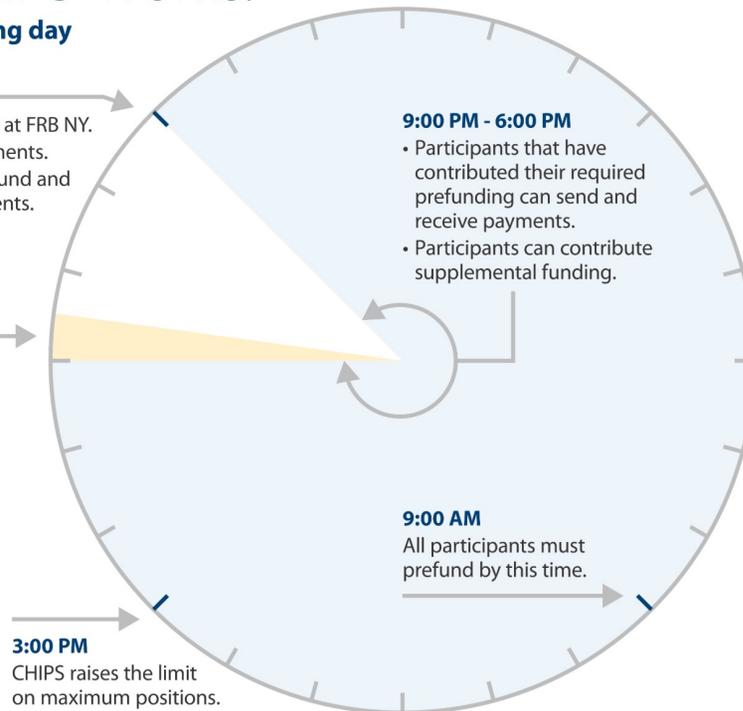
- CHIPS closes for payments.
- CHIPS calculates final positions.
- All participants with final prefunding requirements must fund.
- CHIPS releases remaining payments.
- CHIPS pays out final positions.

3:00 PM

CHIPS raises the limit on maximum positions.

9:00 AM

All participants must prefund by this time.



Source: The Clearing House

- 42 large banks are CHIPS member
- **\$2 trillion** daily volume; liquidity efficiency is **1:29** (compared to CHAPS 13×, Lynx 10×, T2 6.5×)
- CHIPS runs one of the most sophisticated LSM in the world
 - Continuous bilateral and multilateral scan
- Without CHIPS, the liquidity throttling problem in Fedwire would have been substantially worse.
- Two-tier system: Only 42 large banks can use CHIPS. Rest of +10,000 Fedwire participants cannot

Reason #2: CHIPS (continued)

- Large banks use CHIPS and Fedwire simultaneously
 - Submit to CHIPS if the payment is non-urgent and the counterparty is a CHIPS member and the expected netting benefit outweighs the timing uncertainty.
 - Route to Fedwire if the payment is time-critical, the counterparty is outside CHIPS, or the bank needs confirmed finality for legal or regulatory reasons.
 - Certain markets require Fedwire: primary market Treasury settlements, Federal funds market
- CHIPS reduced the most nettable part of the flows from Fedwire (e.g. high-value interbank flows between large banks) and make net payments from large banks more predictable.
- However, CHIPS alone is not enough for prevent liquidity throttling in Fedwire.

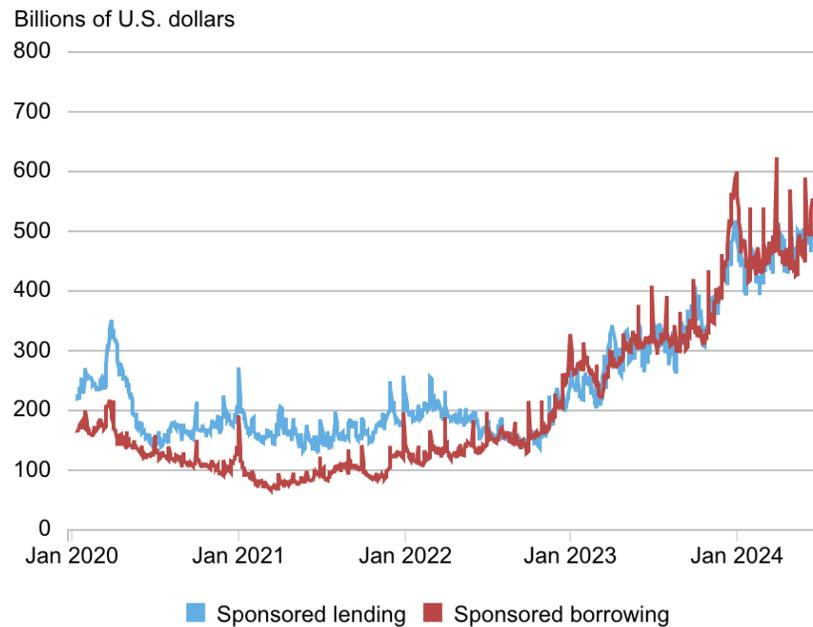
II. Should we start thinking about adding LSM to Fedwire NOW?

1. Treasury Repo Central Clearing Mandate

- **Uncleared bilateral repo:** large gross DvP flows (cash + securities) settled on Fedwire
- **Tri-party repo (BNY Mellon):** collateral and cash are centrally managed with internal netting → only net cash movements settle on Fedwire
- **FICC-cleared repo:** multilateral netting of cash and securities → only net settlement obligations go to Fedwire
- However, the **Treasury repo central clearing** mandate phases in June 2027, which can reduce Fedwire payment flows.

Sponsored Repo Activity Surged since 2022

Both Sponsored Borrowing and Lending More Than Doubled from 2022 to 2024



Sources: Office of Financial Research centrally cleared repo data collection; authors' calculations.

Note: This chart displays total daily sponsored Treasury repo activity by trade type.

Source: Copeland and Kahn (2025)

2. Fedwire Access to Non-Bank PSPs

- Federal Reserve Board sought public comment on "Skinny" Master Account for non-bank payment service providers (PSPs) in December 2025 with comments due February 2026.
- The Federal Reserve Bank of Kansas City approved a limited master account for Kraken with access to Fedwire, a large centralized crypto exchange in March 2026.
- Non-bank PSPs do not have access to the overdraft facility and are not CHIPS members.
- Skinny master accounts also do not pay IORB, so PSPs might have little incentives to pre-fund large balances in the skinny master account.

2. Fedwire Access to Non-Bank PSPs (Continued)

- Payment flows from PSPs (especially crypto adjacent firms) can be large, volatile and highly correlated (e.g. crypto asset shocks)
- More broadly, if the blockchain 24/7 settlement indeed becomes the norm, there will be significant increase in Fedwire volume
 - Stablecoin operate as pre-funded gross settlement — every transfer requires full liquidity in advance
 - Looking ahead, tokenized Treasuries & securities require simultaneous DvP (Delivery vs Payment) — atomic settlement of both legs.

III. Is LSM a Public Good?

US is the only major economy without a public RTGS+LSM

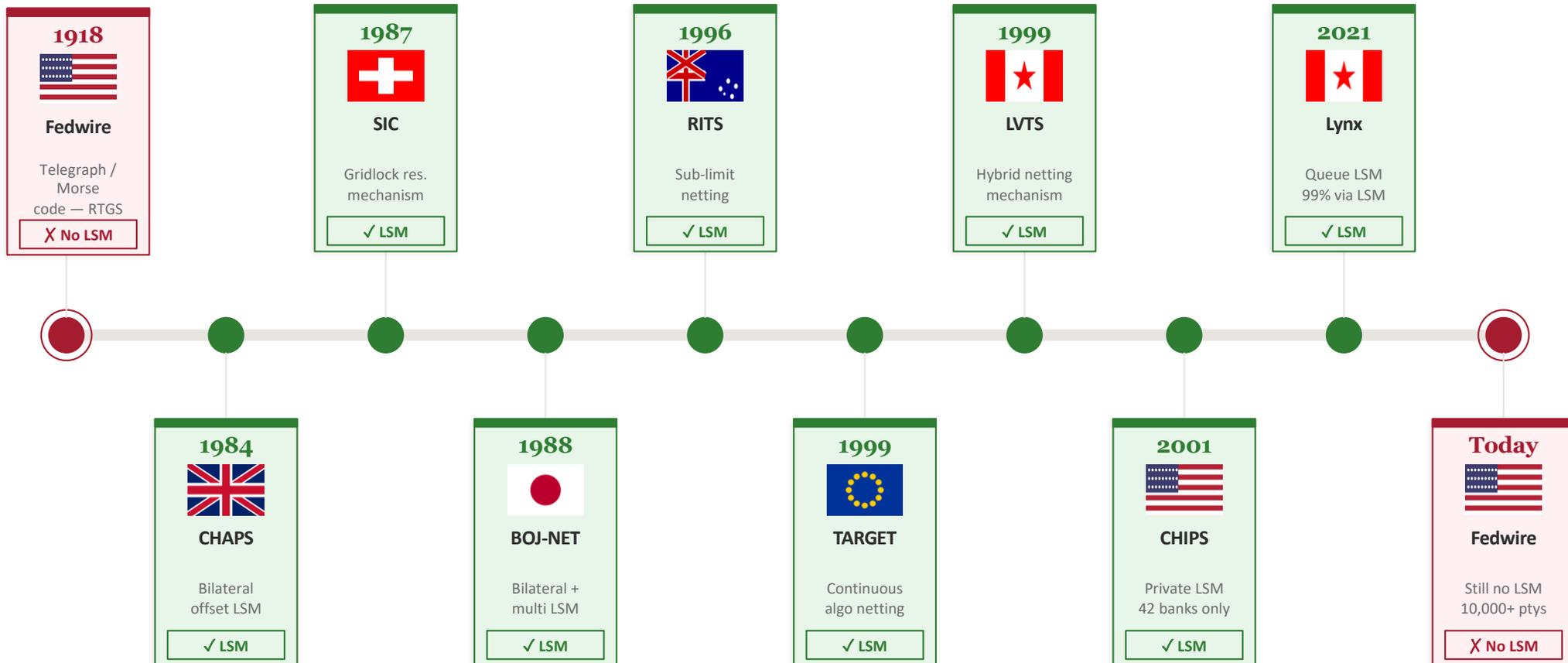


Exhibit design by Claude 4.5 Sonnet

Is LSM a Public Good?

- **LSM in the RTGS has public good features**
 - Positive externalities: one bank's participation improves others' settlement
 - Strong network effects: more participants → more offsetting → lower liquidity needs
 - System-wide benefits: less gridlock, less liquidity hoarding

Conclusion

Is LSM a Public Good?

- **Adding an LSM to Fedwire is a major infrastructure undertaking → benefits are largely medium- to long-term**
 - Near-term gains may be limited, especially with Treasury repo moving toward central clearing (more netting already)
 - But if nonbank PSPs and blockchain-based settlement scale, more sophisticated LSMs become essential
- **It is time for the Fed to start thinking about LSM in Fedwire more seriously – a cost-benefit analysis is a good first step.**