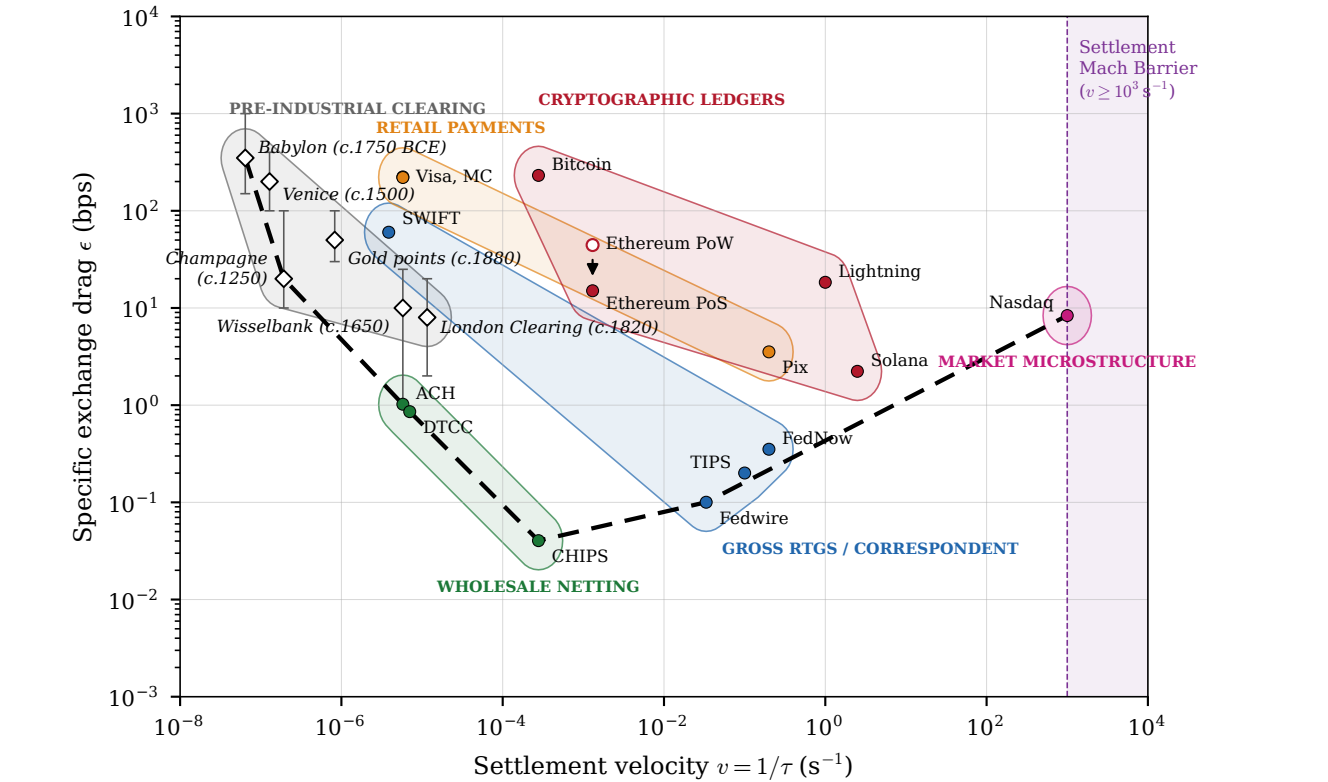

Specific exchange drag ϵ (bps)
Settlement velocity $v = 1/\tau$ (s^{-1})
10^{4}
10^{3}
10^{2}
10^{1}
10^{0}
10^{-1}
10^{-2}
10^{-3}
10^{-8}
10^{-6}
10^{-4}
10^{-2}
10^{0}
10^{2}
10^{4}
Settlement
Mach Barrier
($v \geq 10^{3}$ s^{-1})
PRE-INDUSTRIAL CLEARING
RETAIL PAYMENTS
CRYPTOGRAPHIC LEDGERS
MARKET MICROSTRUCTURE
GROSS RTGS / CORRESPONDENT
WHOLESALE NETTING
Babylon (c.1750 BCE)
Venice (c.1500)
Champagne
(c.1250)
Wisselbank (c.1650)
Gold points (c.1880)
London Clearing (c.1820)
Visa, MC
SWIFT
ACH
DTCC
CHIPS
Bitcoin
Ethereum PoW
Ethereum PoS
Lightning
Pix
Solana
Nasdaq
FedNow
TIPS
Fedwire
GvK Limit Line (lower convex hull of all systems)
Historical exemplar (central value, literature range)
Modern system (2018-2026 panel mean)
Pre-industrial clearing
Wholesale netting
Gross RTGS / correspondent
Retail payments
Cryptographic ledgers
Market microstructure