Discussion of Lester, Millard, and Willison, “Optimal Settlement Rules”

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The switch from DNS to RTGS

- DNS: deferred net settlement; RTGS: real-time gross settlement.
- U.S., U.K., Japan, E.U. all switched to RTGS in the 1990s.
- A good idea?
- Selgin: markets chose DNS.
- Also: How much risk does DNS really pose?
Competing equilibria?

- Costly transfer of funds implies DNS efficient.

- Does this account for historical popularity of DNS?

- As costs fall, RTGS becomes feasible and possibly more efficient.

- Policy: Encourage the switch to RTGS?

- No actual transition dynamics.
Stylized differences

- DNS, payments credited to customers before final settlement = credit risk.

- RTGS, more costly, but technological improvement is reducing the cost.

- Systemic risk? At the heart of the debate, but not in the model.

- Multiple equilibria: A sensible way to analyze problems like these.
Environment

- Random matching, single coincidence meetings.
- Competitive, costly banking sector.
- Reserve requirement.
- Banks charge an upfront fee for loans.
Settlement

- Two sub-periods. Trade in the morning.
- Some payments made through bank accounts.
- RTGS settles these payments in the morning.
- DNS settles these payments in the afternoon.
Bank default

• Exogenous risk of bank default between morning and afternoon.

• Default is resolved with full insurance for depositors.

• Under DNS, sellers receive partial payment.

• Under RTGS, no default risk, but higher costs $\kappa$ levied on all bank accounts.
Payments

- Buyers make take-it-or-leave-it offers on methods of payment.

- RTGS offers are made w.p. $1 - \beta$.

- DNS offers are made w.p. $\beta$.

- DNS offers are accepted w.p. $\sigma$.

- Cash and RTGS offers are always accepted.
Equilibria

- For high $\omega$, no DNS equilibrium exists.

- For high $\kappa$ no RTGS equilibrium exists.

- For low $\kappa$ and $\omega$ RTGS coexists with DNS equilibrium.

- Welfare: RTGS can dominate in coexistence region.

- A role for policy?
Multiple equilibria

- As the authors stress, the calibration is casual.

- Not clear how seriously to take the coexistence region. Relate parameters to data as in Rocheteau and Wright?

- Could a visit to autarky be interpreted as systemic risk? “Payments system breaks down.”

- Transition dynamics necessary for full welfare evaluation.
Concluding thoughts

- Under the author’s interpretation, we should not have observed RTGS systems. Were there ever RTGS systems?

- Could $\omega$ fall as well? Improved insurance or financial systems?

- Transition did not seem to be a problem in data for countries that switched from DNS to RTGS.