

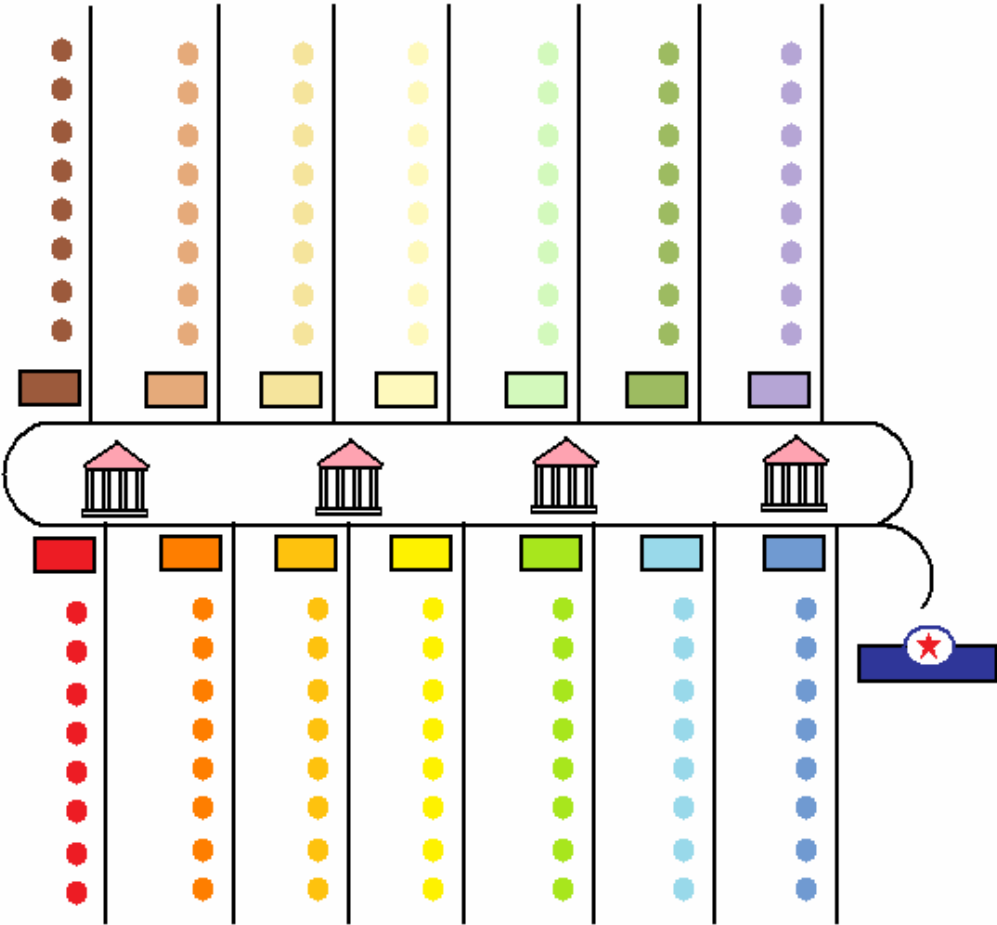
“Transactions, Credit and Central Banking in a Model of Segmented Markets” by Stephen D. Williamson

Discussion by

Charles M. Kahn

Department of Finance, University of Illinois
and Houblon-Norman Foundation, Bank of
England

Williamsontown



Williamsontown

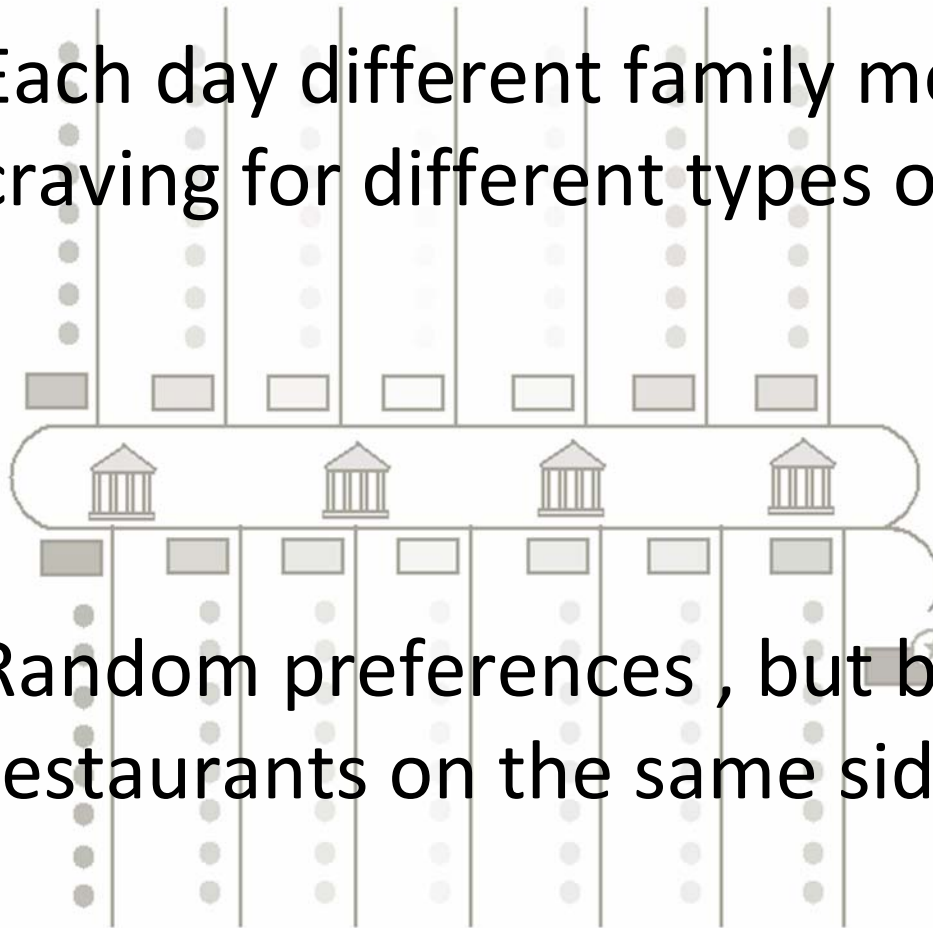
- Inhabited by extended families; each family owns an ethnic restaurant
- In the center of town a set of banks provide checking services



- On the south side of town, a branch of the Federal Reserve buys and sells government securities for “outside money”

Consumption

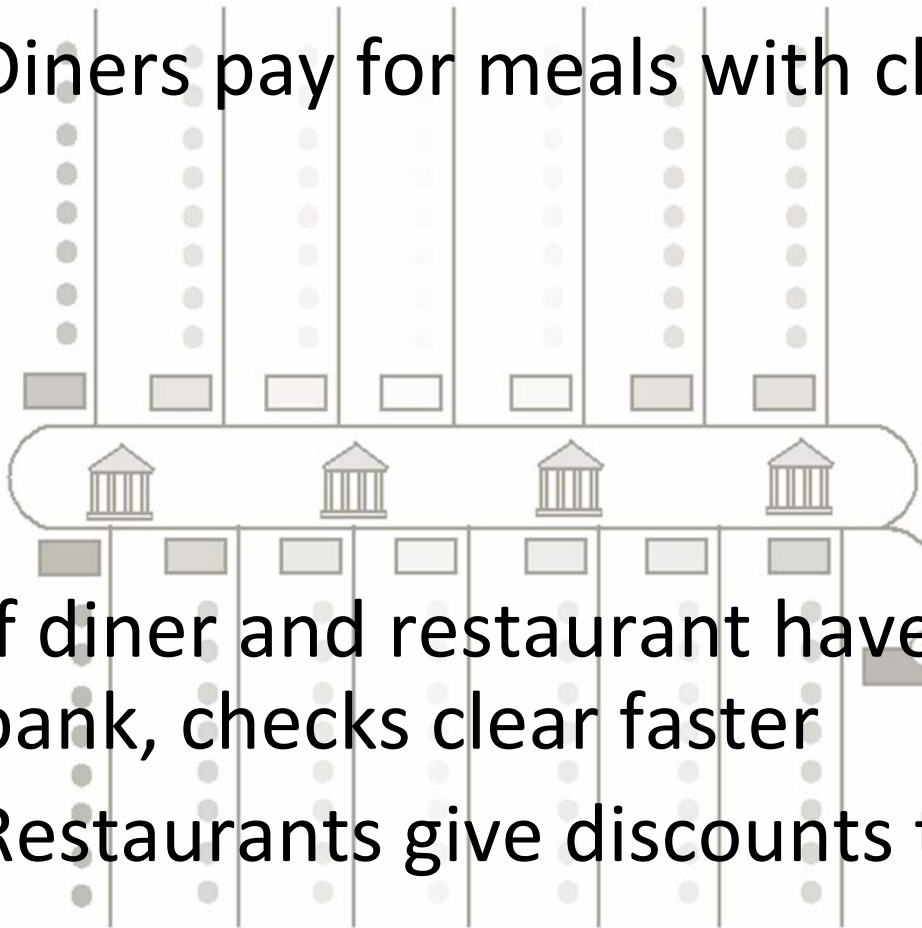
- Each day different family members develop craving for different types of food



- Random preferences , but bias towards restaurants on the same side of town

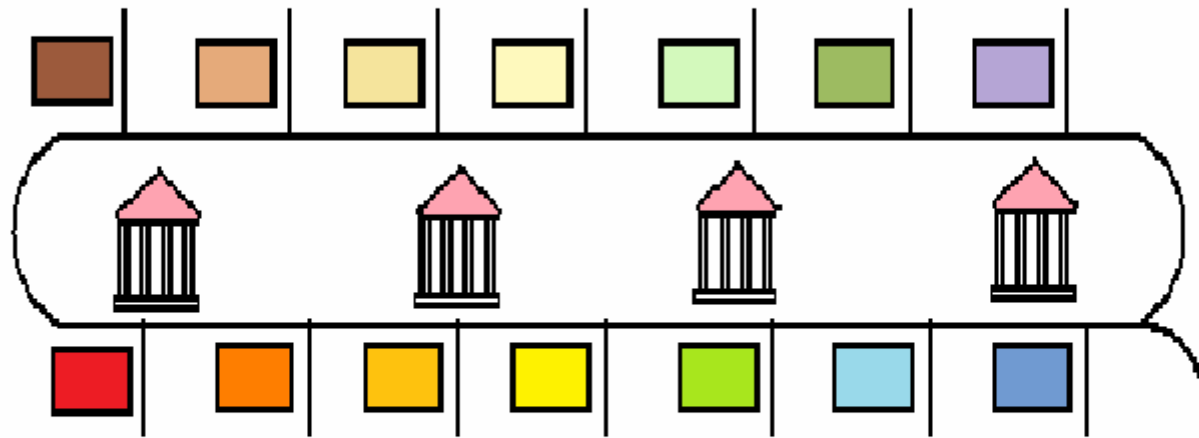
Williamsontown

- Diners pay for meals with checks



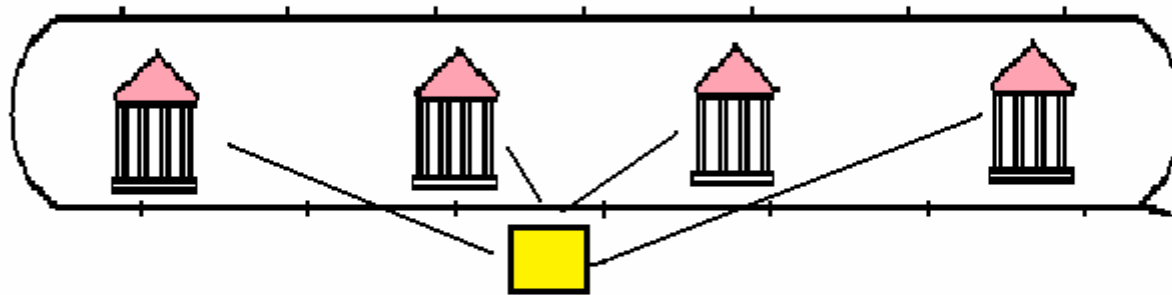
- If diner and restaurant have accounts at same bank, checks clear faster
- Restaurants give discounts to such diners

Daily Settlement



Daily Settlement

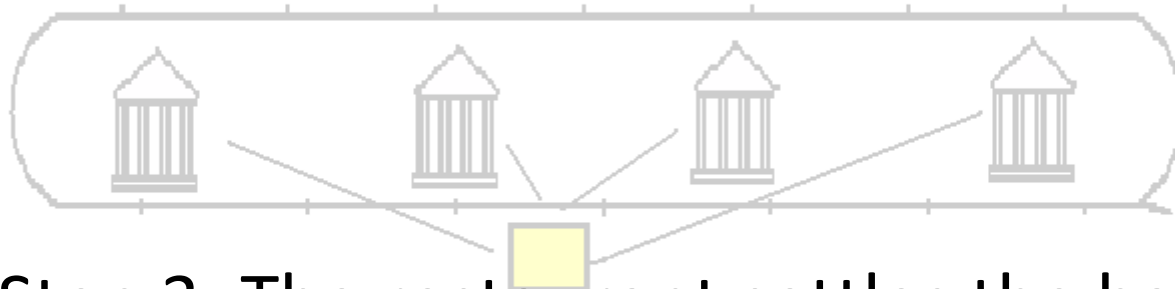
- Step 1: Restaurant returns checks to customers' banks.



- So restaurant has a credit position at all banks but its own family's bank
- At own bank, all family members' checks have been returned, leaving restaurant in a debit position.

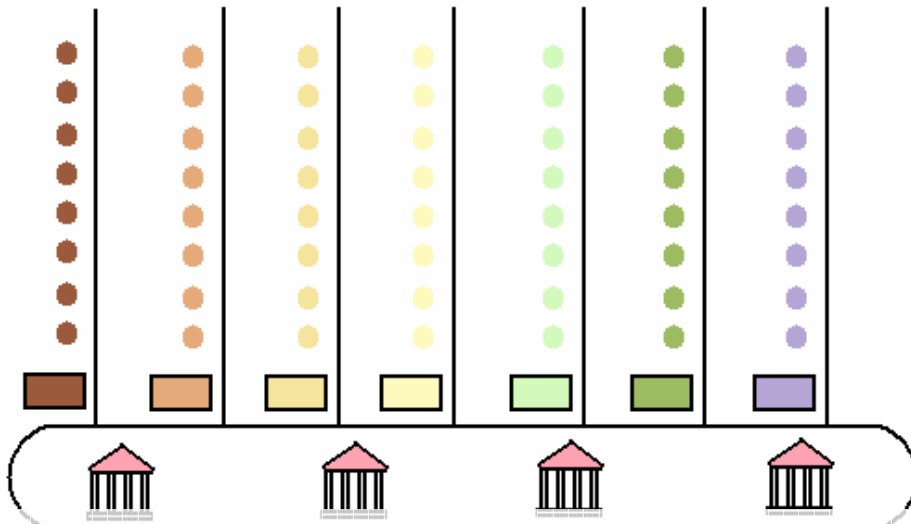
Daily Settlement

- Step 2: Restaurant's own bank nets "on us" checks against family's debit position.



- Step 3: The restaurant settles the balance at its own bank by paying with "outside money"
- Step 4: The restaurant goes round to other banks to collect its credits in outside money.

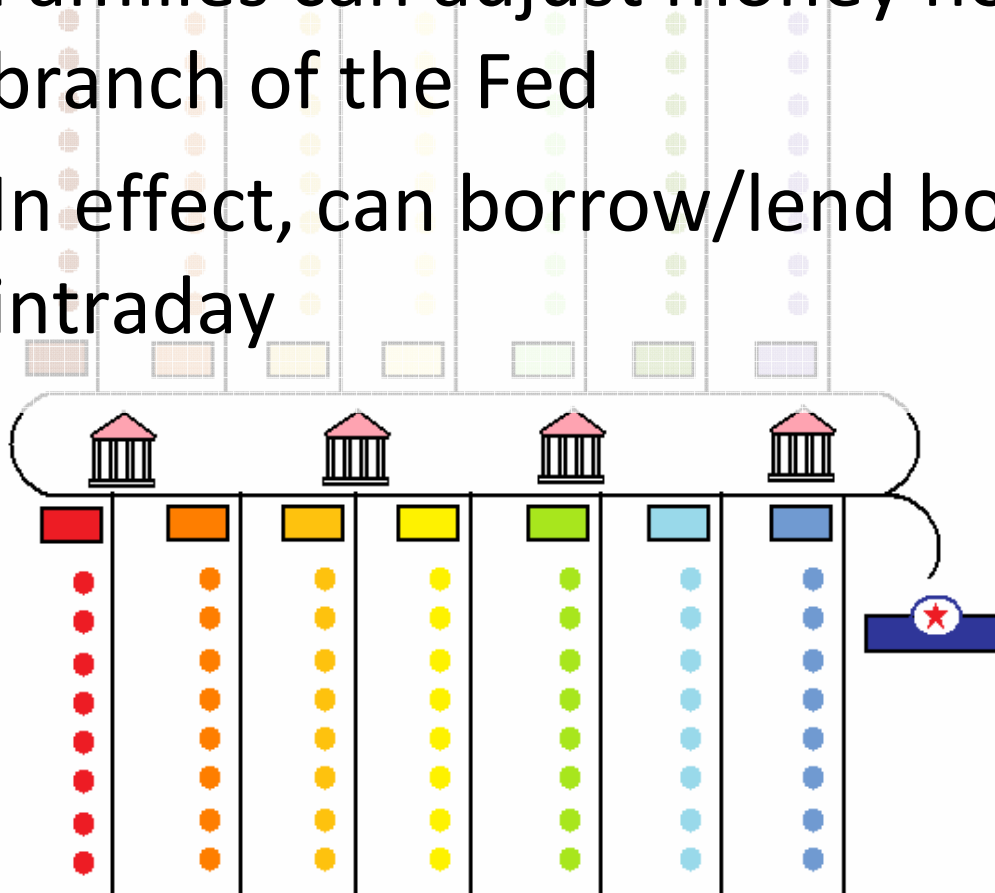
Outside Money (North Side)



- Families initially endowed with outside money
- Use it to settle accounts with their own bank
- Then collect it from other banks and hold it for the next period

Outside Money (South Side)

- Families can adjust money holdings at local branch of the Fed
- In effect, can borrow/lend both overnight and intraday



Interpretation

- Unconnected agents (North side) have cash-in-advance constraints whose severity varies with “payments shocks”
- Connected agents (South side) have arbitrage possibilities: the markup charged to “foreign bank” customers equals the intraday interest rate.

Interpretation

- Consequence: Increasing the daylight money supply has the same effect as increasing the money supply for the whole day: “the action is in the day time”
- Increasing the money supply only overnight has no effect (Money is solely a means of payment).

Usefulness of Model

- Allows for useful comparison between interest on
 - Overdrafts
 - Overnight instruments
 - Reserves

Usefulness of Model

- But when all agents are connected these policy options are equivalent
- The significant differences (and the interesting dynamics) arise from the differential effects on those connected to the Fed and those affected only indirectly
- (Strength and weakness)

Questions

- What if bias in favor of the opposite side of town (more realistic)
- How would you get intraday borrowing by the public (rather than lending)