

# Comment on “A Quantitative Theory of Information and Unsecured Credit” by Athreya, Tam & Young

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## What they do

- ▶ Offer an explanation of recent trend in unsecured consumer credit market
- ▶ Until late 1960s' unsecured credit was almost absent
- ▶ Recently,
  - ▶ rise in availability of credit
  - ▶ rise in debt accumulation
  - ▶ rise in bankruptcy rates and discharge
  - ▶ rise dispersion in interest rates
  - ▶ discount for good borrowers
- ▶ Hypothesis: adverse selection problem has become less severe

## Model with heterogenous borrowers

- ▶ life cycles
- ▶ education (college-educated has higher and more hump-shaped income profile than others)
- ▶ idiosyncratic income shocks (persistent and transitory)
- ▶ utility-cost of default

## Asymmetric information between borrowers and lenders

- ▶ Borrowers likely to default (bad borrowers):
  - ▶ want to borrow more (young, college-educated)
  - ▶ small utility-cost of default
  - ▶ negative income shock
- ▶ Borrowers unlikely to default (good borrowers):
  - ▶ do not need to borrow a lot
  - ▶ large utility-cost of default
- ▶ Asymmetric information problem: lenders cannot distinguish borrowers who are likely to default from those who are not.

# Equilibrium under asymmetric information

## Adverse selection

- ▶ Bad borrowers have incentive to mimic good borrowers
- ▶ Lenders cannot charge different interest rates to different borrowers
  - high interest rate
- ▶ Good borrowers borrow by less
  - Bad borrowers also borrow by less
- ▶ This process continues until unsecured borrowing collapses
- ▶ Results:
  - ▶ high interest rate, low dispersion
  - ▶ not much unsecured borrowing
  - ▶ not much default (because of small borrowing)
- ▶ Interpretation: the economy before the late 1960s

## Who default under symmetric information

- ▶ Young: borrow more for consumption smoothing
- ▶ Small utility-cost of default
- ▶ low to middle realisation of persistent income shock
- ▶ Those are consistent with data
- ▶ Empirical counterpart of utility-cost of default desirable

## Equilibrium with symmetric information

- ▶ Lenders can charge different interest rates to different agents
- ▶ Result
  - ▶ interest rate dispersion
  - ▶ more unsecured borrowing
  - ▶ more default (because of large borrowing)
- ▶ Interpretation: economy after the late 1960s.

## Paper offers good quantitative analysis

- ▶ Model with perfect information matches recent data on
  - ▶ discharge/income ratio
  - ▶ fraction of borrowers
  - ▶ Debt/GDP ratio
  - ▶ Default rate
- ▶ Also, can generate interest-rate dispersion
- ▶ Less emphasis on the model's match to the data before the 1960s? Can the model with imperfect info. match data?



## Sensitivity to assumption on information set

- ▶ Paper
  - ▶ Partial info: only education, age, credit score observable
  - ▶ Full info: each component of income, default cost, asset also observable
  - ▶ Results robust to changing parameter values
- ▶ Moving toward perfect information is agreeable.
- ▶ But the economy may still be under asymmetric information
- ▶ Is the result robust to small deviations from perfect information?
  - ▶ What if utility-cost of default is still unobservable?  
Can the model sustain realistic amount of borrowing?

## A question for future work

- ▶ Recently secured credit for consumption has become more available
- ▶ Can information story also explain this?
- ▶ How are secured and unsecured credit related?