

# The Effects of Regulating Penalty Fees for Consumer Financial Products

K. Jeremy Ko<sup>1</sup>    Jared Williams<sup>2</sup>

<sup>1</sup>Division of Risk, Strategy and Financial Innovation  
U.S. Securities and Exchange Commission

<sup>2</sup>Department of Finance, Penn State University

FDIC Consumer Research Symposium  
September 28, 2012

## Disclaimer

*The Securities and Exchange Commission, as a matter of policy, disclaims responsibility for any private publication or statement by any of its employees. The views expressed herein are those of the author and do not necessarily reflect the views of the Commission or of the author's colleagues upon the staff of the Commission.*

## Outline

- 1 **Introduction**
  - Introduction
- 2 **Model**
  - Model
- 3 **Welfare Analysis**
  - Welfare Analysis
- 4 **Regulation**
  - Regulation
- 5 **Conclusion**
  - Conclusion

# Motivation

- US consumers have incurred high costs associated with household debt possibly in part because of lack of understanding of these costs.
- Prior to 2009 regulation, Americans paid \$15 billion per year in credit card penalty fees (WH estimate) and \$516 per household in bank and credit card fees (Stango and Zinman, 2009).
- Foreclosure rates have persisted at high levels post-financial crisis particularly with alternative mortgage products (Amromin, et al., 2012).

## Motivation

- US consumers have incurred high costs associated with household debt possibly in part because of lack of understanding of these costs.
- Prior to 2009 regulation, Americans paid \$15 billion per year in credit card penalty fees (WH estimate) and \$516 per household in bank and credit card fees (Stango and Zinman, 2009).
- Foreclosure rates have persisted at high levels post-financial crisis particularly with alternative mortgage products (Amromin, et al., 2012).
- The *Credit Card Reform Act of 2009* and *Dodd-Frank Act of 2010* imposed new controls on credit card and mortgage markets.

## Problematic Features

- Low cost initial terms to “lure” consumers, e.g., teaser introductory rates.

## Problematic Features

- Low cost initial terms to “lure” consumers, e.g., teaser introductory rates.
- High cost subsequent terms that are often obscured from consumers, e.g., penalty interest rates, late payment and overlimit fees, disadvantageous allocation of payments (“stealth pricing”).

## Problematic Features

- Low cost initial terms to “lure” consumers, e.g., teaser introductory rates.
- High cost subsequent terms that are often obscured from consumers, e.g., penalty interest rates, late payment and overlimit fees, disadvantageous allocation of payments (“stealth pricing”).
- Consumers may make suboptimal decisions if they are unaware of costs that are shrouded.
- There may be implicit transfers between different consumers, i.e., “naive” consumers who pay interest and fees on credit-card balances subsidize “sophisticated” consumers who do not.



# Regulation

Both price and disclosure regulations have been proposed as remedies.

- The Credit Card Act restricted inactivity and late payment fees for credit cards
- The Dodd-Frank Act restricted prepayment penalties for mortgages.

# Regulation

Both price and disclosure regulations have been proposed as remedies.

- The Credit Card Act restricted inactivity and late payment fees for credit cards
- The Dodd-Frank Act restricted prepayment penalties for mortgages.
- Disclosure requirements for consumer lending established by the Truth in Lending Act (TILA) of 1968.
- The Dodd-Frank Act enhances disclosure requirements for mortgages.

## Research Questions

- Do price and disclosure regulations generally improve welfare, or can they ever introduce distortions in a market with add-on fees that may be shrouded?
- We examine an idealized setting favorable to regulation:
  - Disclosure has zero direct cost.
  - Price caps are always greater than production costs, i.e., price controls cannot lead to underprovision of the good.

## Research Questions

- Do price and disclosure regulations generally improve welfare, or can they ever introduce distortions in a market with add-on fees that may be shrouded?
- We examine an idealized setting favorable to regulation:
  - Disclosure has zero direct cost.
  - Price caps are always greater than production costs, i.e., price controls cannot lead to underprovision of the good.
- However, disclosure is imperfect in our model as in Gabaix and Laibson (2006), i.e., they cause some but not all naïve consumers to understand fees and act rationally.

# Setup

We follow Gabaix and Laibson (2006):

- Firms offer a base good (credit card) and add-on (penalty fees)
- Production cost of each good is normalized to 0

# Setup

We follow Gabaix and Laibson (2006):

- Firms offer a base good (credit card) and add-on (penalty fees)
- Production cost of each good is normalized to 0

## **Base good (credit card):**

- Consumers' valuation may be greater or less than cost
- Price is observable to all consumers

# Setup

We follow Gabaix and Laibson (2006):

- Firms offer a base good (credit card) and add-on (penalty fees)
- Production cost of each good is normalized to 0

## **Base good (credit card):**

- Consumers' valuation may be greater or less than cost
- Price is observable to all consumers

## **Add-on good (penalty fees):**

- Consumers' valuation is greater than cost
- Price may be shrouded (hidden) by firms
- There exists a maximum add-on price (fee cap)

# Assumptions

Two classes of consumers

- **Sophisticated Consumers:**

- Rationally anticipate the add-on price

- **Naïve Consumers:**

- Assume the add-on price is zero if shrouded
- If any firm discloses its add-on price, some (but not all) naïfs acts rationally



# Assumptions

Two classes of consumers

- **Sophisticated Consumers:**

- Rationally anticipate the add-on price

- **Naïve Consumers:**

- Assume the add-on price is zero if shrouded
- If any firm discloses its add-on price, some (but not all) naïfs acts rationally

## Additional Assumptions:

- Bertrand competition
- Disclosure is costless

# Equilibrium

- As in Gabaix and Laibson (2006), firms price the add-on in one of two ways in equilibrium:
  - disclosed and set equal consumers' valuation for the add-on if it is profitable to capture sophisticate demand (**fair**)
  - shrouded (if feasible) or disclosed (if mandatory) and set equal to the maximum feasible price (**unfair**)

# Equilibrium

- As in Gabaix and Laibson (2006), firms price the add-on in one of two ways in equilibrium:
  - disclosed and set equal consumers' valuation for the add-on if it is profitable to capture sophisticate demand (**fair**)
  - shrouded (if feasible) or disclosed (if mandatory) and set equal to the maximum feasible price (**unfair**)
- Therefore, the base good (credit card) is priced below cost (e.g., no annual fee, cash back bonuses, free miles, etc.) while the add-on fee is priced above production cost, e.g., credit card penalty fees.
- Firms maximize add-on prices (for a fixed level of sophisticate demand) since naïf demand is insensitive to add-on costs.

## Welfare Functions

We employ two measures of consumer welfare:

- **Total surplus**: net monetized utility consumers from the product across *all consumers*

## Welfare Functions

We employ two measures of consumer welfare:

- **Total surplus**: net monetized utility consumers from the product across *all consumers*
- **Unsophisticated Welfare**: the expected net monetized utility of a priori unsophisticated consumers
  - If firms disclose, there's a non-zero probability unsophisticated consumers become sophisticated
  - If firms shroud, all unsophisticated consumers act naïvely, i.e., they buy the add-on regardless of its price

## Welfare Losses

Source of welfare loss:

- Sophisticated consumers do not consume the add-on even though utility exceeds cost
- Unsophisticated consumers overpay for the add-on if its price exceeds their valuation

Welfare losses arise when the add-on is priced above consumers' valuations in the "unfair" equilibria, which exist when:

- The maximum add-on price (fee cap) is high
- There are few sophisticated consumers in the market
- Consumers' valuation for the add-on is low

## Welfare Losses

Source of welfare loss:

- Sophisticated consumers do not consume the add-on even though utility exceeds cost
- Unsophisticated consumers overpay for the add-on if its price exceeds their valuation

Welfare losses arise when the add-on is priced above consumers' valuations in the "unfair" equilibria, which exist when:

- The maximum add-on price (fee cap) is high
- There are few sophisticated consumers in the market
- Consumers' valuation for the add-on is low

The "unfair" equilibria *cannot* exist if the fee cap is low, there are many rational consumers, and consumers' valuation for the add-on is high

## Disclosure Mandates

It is well-known that disclosure mandates can harm consumers when they are costly to implement

- We assume there are no direct costs to disclosure

Disclosure mandates can harm consumers if price controls are lax

- Firms maximize profits by charging the maximum add-on price if it is sufficiently high
- Disclosure can reduce welfare because it increases the number of sophisticates who inefficiently avoid the add-on
- Firms earn less from the add-on, so they must charge more for the base good
- This increase in the price of the base good can dominate the benefits unsophisticated consumers receive from the disclosure



## Price Controls

It is well-known that price controls can harm consumers when they lead to underprovision of the good

- We assume price caps are always above production costs

## Price Controls

It is well-known that price controls can harm consumers when they lead to underprovision of the good

- We assume price caps are always above production costs

Price controls can harm consumers when imposed while firms voluntarily disclose add-on prices

- For broad ranges of parameter values, both shrouding and voluntary disclosure equilibria exist simultaneously

## Price Controls

It is well-known that price controls can harm consumers when they lead to underprovision of the good

- We assume price caps are always above production costs

Price controls can harm consumers when imposed while firms voluntarily disclose add-on prices

- For broad ranges of parameter values, both shrouding and voluntary disclosure equilibria exist simultaneously
- Price controls can move the market to an equilibrium where firms overcharge for the add-on

## Complementarities

In isolation, either form of regulation can harm consumers

When applied jointly, the unintended consequences described earlier can be averted:

- Conditional on disclosure being mandated, price controls always (weakly) improve welfare
- Conditional on add-on prices (penalty fees) being sufficiently constrained, disclosure mandates always (weakly) improve welfare

## Summary

- We show that price controls and disclosure mandates can harm consumers, including unsophisticated ones, even if disclosure is costless and the price caps remain above production costs

## Summary

- We show that price controls and disclosure mandates can harm consumers, including unsophisticated ones, even if disclosure is costless and the price caps remain above production costs
- By judiciously applying price controls and disclosure mandates (together), regulators can avoid the unintended consequences we document